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COMPLETE ANNUAL CATALOGUE
1927



POOLE'S STRAIN NEW YORK LETTUCE

Poole's
Seed & Implement Co.
TACOMA

1507-9 Pacific Avenue

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U.S. DEPARTMENT OF AGRICULTURE

D. N. Shoemaker

WHEN AND HOW TO ORDER

USE ORDER BLANK in the front of your Catalog, carefully filling out the blank spaces at the top for shipping directions. Be sure to sign your name.

PRICES—The prices named in this catalog are those prevailing at the time the catalog goes to press and are subject to market changes in value. Your order will be figured at the price prevailing at the time same is received and where lower you will be protected and refund made according to price. As prices usually advance on many items, toward the planting season, it will be to your advantage to **order early**.

Our seeds are not sold on commission, therefore we do not have a quantity of unsold seeds returned to us or carried over. Packets are put up fresh each season and you can make no mistake in using POOLE'S Quality Seed.

OUR TERMS ARE STRICTLY CASH WITH ORDER where arrangements for credit have not been previously made.

SEND MONEY by Postoffice or Express Money Order, Bank Draft or Registered Letter. Postage stamps will be accepted for small amounts. Money sent in any other way is entirely at sender's risk.

SPECIAL NOTICE—We pay postage on all Flower Seed and all vegetable Garden Seed Excepting Peas, Beans, Corn and Onion Sets. For these see Zone Rates.

POSTAGE AND PARCEL POST RATES are compiled for your information on back of front cover of this catalog and you should keep them for reference. Remember where shipments are made FROM points on R. E. D. Routes the handling charge of 2c per shipment is omitted.

ALL other items are P. O. B. Tacoma, Wash., unless the price is stated otherwise, and money should be sent to cover transportation if sent to a station without an agent or if sent parcel post, **balances will be promptly returned**. A compliance with this will save expense and annoyance and insure quicker delivery. Advise how you want your goods shipped.

WE DO NOT GUARANTEE REPLACEMENT OF GOODS SENT BY MAIL. An additional remittance of five cents will insure any small package.

PREPAY STATIONS. When you send in orders to go by freight or express be sure that you add money enough to pay freight charges if your station is a **prepay point**, which is **always the case where there is no regular agent**.

EXPRESS AND FREIGHT. Seeds and merchandise sent by freight or express means that we deliver the goods to the express or railway company. The purchaser pays all transportation charges on goods. On moderate sized orders we advise express shipment rather than freight.

Upon delivery of goods to transportation company, a sale is completed. In event of loss or damage in transit the purchaser must have notation of such loss placed upon his receipt, and may then file claim for loss at his station, or may send the necessary papers to us when we shall gladly enter claim for him, remitting to him as soon as the claim is paid. Remember that our responsibility ceases on delivery in good order to the transportation company, and it is therefore imperative that every purchase be carefully examined for loss or damage before receiving it.

SPECIAL QUOTATIONS ON LARGE ORDERS: Any dealer, market gardener, institution or individual wishing seed in large quantities, is requested to mail us a list of what is wanted, and we will promptly return it with the very lowest market prices. **A letter of inquiry may save you dollars** if you want to buy in quantity. If in need of something pertaining to agriculture not herein listed, write us before ordering elsewhere.

COMPLAINTS OR PRAISES. If you are well pleased with our goods and the manner of doing business, tell everyone. If you are not, tell us, so we can please you. Our best efforts will be put forth in filling orders carefully and promptly in a way that will please you.

KEEP A COPY OF YOUR ORDER. Check goods when received. We use the greatest care in filling, checking and packing orders, but in spite of all, mistakes may occur. Should any happen in your order, advise us promptly, giving order number, and same will be promptly rectified. **Do not return good until you hear from us.**

SEED DISCLAIMER

All orders are accepted, all shipments made, subject to the following disclaimer, to-wit:

While we exercise the greatest care to have all Seeds pure and reliable, and all Bulbs, Plants and Nursery Stock true to name, we do not give any warranty, express or implied, and will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms and conditions, they must be returned at once, and the money that has been paid for the same will be refunded.—**POOLE'S SEED & IMPLEMENT CO.**

PARCEL POST RATES

Mailing Rate for Seeds, Plants and Books 1 lb. for 2 ounces up to 8 ounces and over 8 ounces take Parcel Post Rates.		First Pound or Fraction Thereof	Each Additional Pound or Fraction	
Local or District Rate—Tacoma Office and Rural Routes therefrom		\$0.05	& cent	Weight Limit, 70 lbs.
1st Zone (up to and including a radius of 150 miles from the point of mailing)		.07	\$0.01	Weight Limit, 70 lbs.
2nd Zone		.08	.02	Weight Limit, 70 lbs.
3rd Zone		.09	.04	Weight Limit, 50 lbs.
4th Zone		.10	.06	Weight Limit, 50 lbs.
5th Zone		.11	.08	Weight Limit, 50 lbs.
6th Zone		.13	.10	Weight Limit, 50 lbs.
7th Zone		.14	.12	Weight Limit, 50 lbs.
8th Zone				

REFERENCE TABLE

Quantity per acre		Quantity per acre	
Barley	2 to 2½ bu.	Orchard Grass per.	2 bu.
Broom Corn in drills	15 lbs.	Millet for Seed	12 lbs.
Buckwheat	½ to 1 bu.	Millet for hay	20 lbs.
Clover-Alsike and White	6 to 8 lbs.	Oats	2 to 3 bu.
Alfalfa	15 to 20 lbs.	Field Peas	2 bu.
Crimson Trefoil	10 to 15 lbs.	Rape	3 to 5 lb.
Red Clover	10 to 12 lbs.	Rye	1½ to 2 bu.
Grass Seeds		Speltz	100 lbs.
Meadow Fescue	1 bu.	Sunflower	8 lbs.
Mixed Lawn Grass	5 to 6 bu.	Timothy	12 to 15 lbs.
Red Top	2 bu.	Vetch	2 bu.
Red Top Solid Seed	12 to 15 lbs.	Vetch with Grain	1 bu. each
Kentucky Blue Grass	2 bu.	Wheat	1½ to 2 bu.

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Weights of Various Articles—Per Bushel

Artichokes -----	60 lbs.	Flaxseed -----	56 lbs.	Peas, Smooth -----	60 lbs.
Barley -----	48 lbs.	Grass Seeds (unless otherwise stated) -----	14 lbs.	Peas, Wrinkled -----	56 lbs.
Beans -----	60 lbs.	Hungarian Millet -----	48 lbs.	Perennial Rye Grass -----	20 lbs.
Buckwheat -----	48 lbs.	Lawn Grass -----	20 lbs.	Potatoes -----	60 lbs.
Blue Grass -----		Meadow Fescue -----	24 lbs.	Rape -----	60 lbs.
Kentucky -----	21 lbs.	Millet -----	50 lbs.	Rye Grain -----	56 lbs.
English -----	24 lbs.	Oats -----	32 lbs.	Red Top -----	14 lbs.
Clover Seed -----	60 lbs.	Onion Sets -----	32 lbs.	Red Top, Solid Seed -----	42 lbs.
Corn, Shelled -----	56 lbs.	Orchard Grass -----	14 lbs.	Timothy -----	45 lbs.
Emmer Speltz -----	40 lbs.			Vetches -----	70 lbs.

ASPARAGUS



CULTURE—The seed before planting should be well soaked in luke warm water and allowed to remain until cool. Sow in the early Spring after all danger of frost is past in rows about one foot apart, preferably on well drained bottom land or rich loamy soil. Cover with 2 inches of soil firmly pressed down. When the plants are well up, thin to about 1 inch apart and cultivate frequently. After the first year transplant into permanent beds thoroughly trenched two feet in depth. Set the plants in rows 2 feet apart and 18 inches apart in the rows. The roots should be well spread and should be covered only 2 or 3 inches and filled in as the plants grow. No cutting should be made until the next year. Asparagus from seed does not always come true to name.

1001—Washington, the New Rist-Resisting Asparagus. The new pedigreed rust-resistant variety was bred up by the United States Bureau of Plant Industry co-operating with the Massachusetts Agricultural Experiment Station covering a period of fourteen years. Washington and Palmetto Asparagus planted this spring, side by side, we find the Washington has made double the growth over the Palmetto. Seed planted April 15th has attained a growth of 4½ feet. Pkt., 10c; oz., 30c; ¼-lb., 90c; lb., \$3.00.

1002—Palmetto. Of southern origin; a very desirable, bright green Asparagus. Oz., 15c; ¼-lb., 35c; lb., \$1.00.

1003—Colossal. The approved standard sort. The famous Argenteuli of the French is identical with it. Oz., 15c; ¼-lb., 35c; 1 lb., \$1.00.

1004—Columbian Mammoth. Very large shoots. Oz., 15c; ¼-lb., 35c; 1 lb., \$1.00.

All 5 cents per packet.

ASPARAGUS ROOTS

Palmetto—2-year-old roots. One doz., 25; 50 for 75c; 100 for \$1.25.

Washington—2-year-old roots. One doz., 25c; 50 for 75c; 100 for \$1.25.

YELLOW PODDED OR WAX

CULTURE—About the first of May, if the ground is perfectly warm, select a warm, dry, sheltered spot, dig and manure slightly; make drills 2 inches deep and 18 inches to 2 feet apart; drop the beans 3 inches apart in the drills, and cover not more than 2 inches deep. Hoe well in dry weather to keep down the weeds. Sow every two weeks for a succession. One quart to 100 feet of drill; one bushel to the acre in drills.

DWARF OR BUSH—YELLOW PODDED

When ordering Beans by mail, add to cover postage.

1010—Prolific Black Wax (Pencil Pod). An improvement on the old Black Wax or Butter Bean. Very vigorous and prolific; pods fairly long, golden-yellow, very brittle, and stringless; seed black Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1011—Improved Golden Wax. One of the most popular garden varieties in cultivation. Pods are long, nearly straight, broad and flat, and golden-yellow; seed white, more or less covered with two shades of purplish red. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1012—Davis Kidney Wax. The most hardy and productive wax bean. The pods are long, white, straight, crisp and tender. The vine is rustless and very vigorous, bearing the pods in clusters. For canning this is unexcelled on account of purity of the pod and bean. It is a remarkably good variety for shipping; seed white, and on this account is desirable for a shelled bean in winter. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1013—Wardell's Kidney Wax. A hardy, strong growing vine, handsome, long podded variety. A few days later than Golden Wax; pods long, golden-yellow, brittle and entirely stringless; seeds white, with dark markings about the eye. Market gardeners find this bean one of the most profitable. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

HUMOGERM INOCULATION FOR BEANS

1014—Weber Wax. Extra early dwarf wax bean. Ready for table in 53 days. Pods 6 in. long. Straight and flat and stringless. Deep yellow. Lb., 30c; 10 lbs., \$2.50.

BEANS

DWARF VARIETIES



GOLDEN WAX

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

GREEN PODDED

BEANS—Continued

BUSH VARIETIES

1015—Stringless Green Pod. The finely shaped, long green pods are absolutely stringless, and are ready to market two weeks earlier than any other green-podded bean. It is of immense value, not only to the market gardener, but also for those who seek early beans of a rare quality for the home table. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1016—Early Long Yellow Six Weeks. A long podded green variety. Plants strong and vigorous. Full flat pods. Excellent for market gardeners. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1017—Stringless Refugee. A splendid improvement on the Refugee Thousand to One, with which it compares in season and earliness, but is absolutely stringless. Pods are round, more even in length, possibly a little lighter green in color, exceedingly tender and of a delicious flavor. A splendid bean both for snap and canning purposes. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1018—Broad Windsor. Stalk erect, strong and shrubby. The bean is large, broad and flat; should be planted early and is best green shelled. An English variety. Pkt., 10c; lb., 30c.

1019—Extra Early Red Valentine. A popular variety; erect vine with dark-green leaves. Pods of medium length; fleshy, round and saddle-backed, with only slight strings. Seed pink, marbled with red. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1020—Canadian Wonder. This splendid bush bean is the largest, most prolific of the green-podded sorts, and is entirely stringless in its early development. Comes a little later than the New Stringless Green Pod, but continues in bearing throughout the season, and is excellent shelled green. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1021—Dwarf Horticultural, or "Cranberry Bean." Grows erect, strong and shrubby, and is very prolific. The bean is highly prized, green shelled. It is rather large, plump, and beautifully mottled yellow and red; one of the most delicious and desirable beans and a great favorite with market gardeners. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1022—Lady Washington Field Bean. An improvement over the old Navy Bean; is earlier, larger and more productive. Pkt., 10c; lb., 25c; 10 lbs., \$2.25.

1025—Castor Bean. Used for medicinal purposes and by some claimed to keep moles away. Castor beans are very ornamental, the plants and foliage being large and tropical in appearance. Pkt., 10c; oz., 20c; lb., \$2.00.

1030—Burpee's Bush Lima. A bush form of the large flat Pole Lima, growing only 18 to 20 inches high. The beans are borne very profusely. Pkt., 10c; lb., 35c.

POLE OR RUNNING BEANS

1035—Kentucky Wonder. This grand pole bean continues to be a great favorite. It is perfectly suited to this climate. Medium early, and enormously productive. Very large, long pods that cook tender and melting, and when once matured the green shelled beans are excellent. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1036—Oregon Giant Greenpod (Dickenson's Yount). Also known as "Tacoma Wonder." The large fleshy pods 10 to 12 inches in length are free from all stringiness and are tender, crisp and delicious. The size, splendid quality and rich flavor make this one of the most desirable for home gardens and for canning. "Oregon Giant" is a strong grower and yields heavily, bearing its enormous pods in great clusters. The color is a light greenish yellow, splashed red. Pkt., 20c; ½ lb., 30c; 1 lbs., 50c; 10 lbs., \$4.00.

1037—Horticultural Pole. Good as a snap or as a shell bean; one of the old standards and still very popular. Pods short, pale green, becoming splashed with brownish red. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1038—Dutch Case Knife. A little later. Has large, green flat pods; good for "snap" or shelled green. The large Lima beans are too late for our climate, and the Dutch Case Knife is the nearest approach to them of any here. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1039—Lazy Wife. Pods are from four to five inches in length, produced in large clusters in great abundance. Dark green, thick, fleshy and stringless; of unusually rich flavor. Dry beans, pure white, excellent for winter use. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1040—Scarlet Runner. Especially used as a flowering bean. Used frequently as a shell and snap bean. Pkt., 10c; lb., 40c.

1041—Oregon Pole Lima—The only Lima Bean that will thrive in our cool climate. Oregon Pole Lima grows a strong, thrifty vine and is very prolific, bearing continuously until frost, the blossoms bursting from the top shoots in long panicles, while the pods can be seen in every stage of development, to the matured beans at the bottom of the vine. Pods are well filled, having three to five large beans of finest quality. Oregon Pole Lima can be planted in any garden soil as early as April or late as July. Give the same care and culture as other Beans, and they are ready to use when the pods are filled and first begin to ripen. They are at their best when the full green pods begin to turn yellow. Pkt., 10c; lb., 45c.

1042—King of the Garden Pole Lima. One of the best and most popular main crop varieties. It is medium early and has very long pods, 5½ to 6½ inches long, which are well filled with four or five good-sized beans. Pkt., 10c; lb., 45c.

1045—Kentucky Wonder Wax. The Pride of the Garden. It commences to bear when scarcely higher than the average bush variety. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

TABLE BEETS

CULTURE—Sow as early in the spring as the ground can be worked (one ounce to 50 feet of drill, five or six pounds to the acre), and every two weeks after for a succession up to the first week of July. For general crop, sow about the middle of May. The soil should be light, sandy loam, well enriched with

stable manure and plowed and harrowed until very fine. Sow in drills 1 foot to 15 inches apart, and when well up, thin to from 4 to 6 inches. The young beets, with their tops, pulled out of the row, are excellent used as a spinach. For this purpose, sow frequently and use when of the size of a hickory nut.

1050—Extra Early Egyptian. The best variety for forcing and for market gardeners, being very early with small tops. Roots very dark red, rounded on top, but flat beneath, with very small tap roots. Pkt., 5c; oz., 15c.; ¼-lb., 35c; lb., \$1.00.

1051—Detroit Dark Red Turnip. A fine beet for bunching for market; tops exceptionally small and uniformly upright. The roots are perfect turnip shape with small tap roots. One of the deepest red beets. Quality is of the finest; sweet and tender, best beet for home gardens. Pkt., 5c; oz., 15c; ¼-lb., 35c; lb., \$1.00.

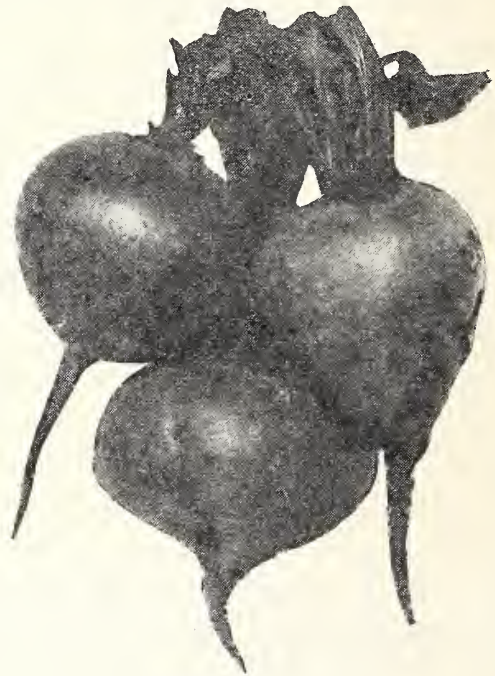
1052—Early Eclipse. One of the best early sorts. It possesses all the qualities requisite in a first-class beet, and is of a uniform, globular shape. The roots are a bright, glossy red, fine-grained and delicious. Pkt., 5c; oz., 15c; ¼-lb., 35c; lb., \$1.00.

1053—Crosby's Egyptian. Very popular early beet, as it reaches the desired size quickly. The beets are of good size, rather flat than round, and flesh dark. Pkt., 5c; oz., 15c; ¼-lb., 35c; lb., \$1.00.

1054—Crimson Globe. Globular shape; flesh rich, deep crimson; tender and sweet. Pkt., 5c; oz., 15c; ¼-lb., 35c; lb., \$1.25.

1055—Early Blood Turnip—Improved. An extra selected stock of blood turnip having large, coarser tops and roots than the Detroit Dark Red, and requiring a longer time to mature. Excellent for summer and autumn use. Pkt., 5c; oz., 15c; ¼-lb. 35c. lb., \$1.00.

1056—Long Blood. The root is smooth and handsome, flesh brilliant in color and excellent quality. Good keeper. Pkt., 5c; oz., 15c; ¼-lb. 35c; lb., \$1.00.



Detroit Dark Red

SWISS CHARD (Spinach Beet)

1070—New Savoyed Leaf. "LUCULLUS" An improved variety of "Swiss Chard," growing about two and a half feet high. The heavy stalks are over an inch thick and bare for more than a foot of their length. The leaves make the finest of "greens." By cutting back the leaves close to the ground tender shoots spring up quickly, these or the mid-rib are very delicious cooked as asparagus. Swiss chard is hardy, easily grown and should be in every garden. It is one of the most delicious of all vegetables. Pkt., 5c; oz., 15c; ¼-lb., 35c; lb., \$1.00.

BROCCOLI

CULTURE—Sow early sorts as soon as the ground can be worked in the spring, in shallow drills, drawn 3 or four inches apart. Plant out 2 feet apart each way when the plants are about 4 inches high. Cultivate the same as cabbage, in rich soil.

1075—ST. VALENTINE—The Finest of All Broccoli. This grand new strain is a sure header of immense size, finest quality, and is ready for market in February. The large, solid, handsome, white heads remain in good condition longer than other varieties. Pkt., 15c; oz., \$1.50; ¼-lb., \$5.00.

1076—Early White. Resembles cauliflower; very white and sure to head. Pkt., 5c; oz., 75c; ¼-lb., \$2.00.

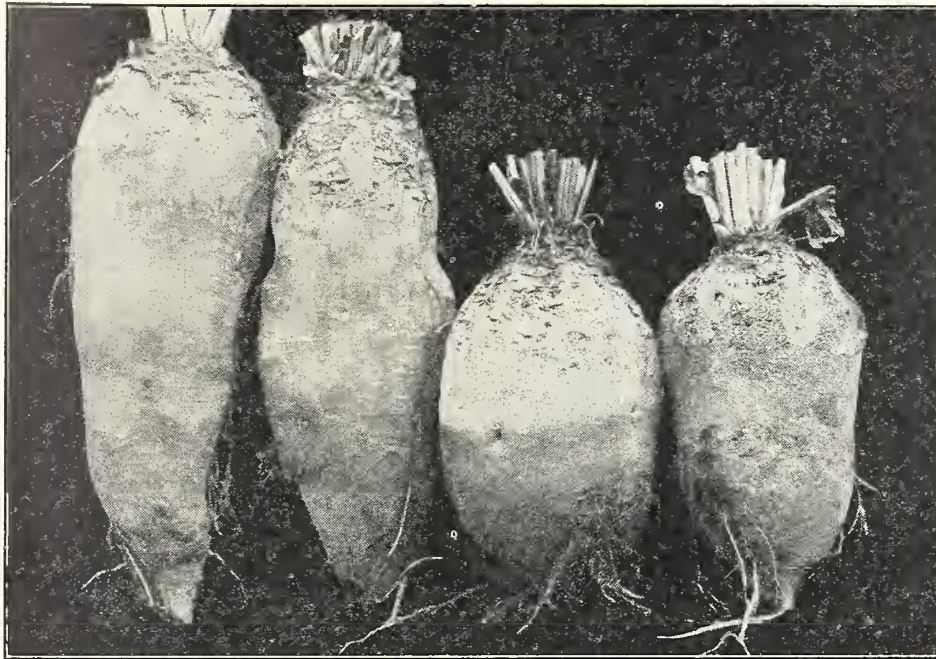
1077—Mammoth White. A valuable variety with large, white heads, firm and of good flavor. Pkt., 5c; oz., 75c; ¼-lb., \$2.00.



A Planet Jr., Seeder will save Labor, Saves Seed at planting time.

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

MANGEL-WURZEL and SUGAR BEET



Yellow Giant

Sludstrup

Golden Tankard

MANGEL-WURZEL

STOCK BEETS OR MANGEL-WURZEL

CULTURE—As all Mangels require a deep soil in order to grow well, plow subsoil at least 1 foot to 18 inches. Sow in May or June, in rows 18 inches to 2 feet apart, and thin to 8 inches in the rows. Young plants may be transplanted to fill up vacancies.

(On 5 pounds or over, 5c pound less.)

1060—Danish Sludstrup. An improved variety, considered one of the best. Awarded first class certificate. Color reddish-yellow and of a distinct type. It is very hardy, grows well above ground; is easily pulled and very nutritious. Pkt., 5c; oz., 10c; ¼-lb., 20c; lb., 50c.

1061 — Improved Mammoth Long Red. Very popular and much used. A large and heavy cropper. Dark red skin, with whitish flesh; grows one-half or more

above the surface; roots quite regular; attain a very large size. Pkt., 5c; oz., 10c; ¼-lb., 20c; lb., 50c.

1062—Golden Tankard. An enormous yielder of weight per acre, and at the same time very nutritious; flesh deep yellow; of fine shape, growing largely above soil, thus being easily harvested. Pkt., 5c; oz., 10c; ¼-lb., 20c; 1 lb., 50c.

1063—Yellow Giant, Intermediate or Gate Post. Roots very large, growing over one-half out of the ground; flesh white, sweet and tender; tops bright green, comparatively small; neck small, short. Its fine flesh never becomes woody and the crop is easily harvested. Pkt., 5c; oz., 10c; ¼-lb., 20c; lb., 50c.

Use "Snarol" for destroying Cut Worms, Snails, Slugs in your Gardens.

1064—Giant Half Sugar Mangel. A new variety, very much more valuable for feeding purposes than the old sorts, it being very much richer. Yields as much per acre as the best Mangels, and twice as much per acre (bulk of roots) as the rich sugar beet. Roots long and thick and large, very smooth, with few rootlets and creamy white in color, with medium-sized top. Pkt., 5c; oz., 10c; ¼-lb., 20c; lb., 50c.

SUGAR BEETS

1065—French White Sugar. The sugar beet most generally grown, as it combines with heavy yield, from 10 to 13 per cent of sugar. Pkt., 5c; oz., 10c; ¼-lb., 25c; 1 lb., 75c.

1066—Klein Wanzleben Sugar. This is the standard variety grown commercially for the production of sugar. Pkt., 5c; oz., 10c; ¼-lb., 25c; lb., 75c.



BRUSSELS SPROUTS

CULTURE—Sow in May, in the same manner as cauliflower, and transplant in July, 1 foot apart in the rows which should be 1½ feet apart. The Brussels Sprout is without exception, the best winter vegetable that can be grown.

1080—Dwarf Improved. A carefully grown strain very hardy and giving compact, round sprouts of large size and good quality. Pkt., 5c; oz., 25c; ¼-lb., 75c; lb., \$2.50.

"PEP
PAYS"

CABBAGE

CULTURE—The requisites for complete success are: First—Good seed. There is no other vegetable where the seed has so much influence on the quality of the product, and gardeners should always use the best procurable. Second—Rich, well prepared ground. Third—Frequent cultivation. A heavy moist and rich loam is most suitable, which should be highly manured and worked deeply. Cabbage is universally grown and specific directions regarding the time and method of planting applicable to all localities cannot be given. In general, the early sorts should be sown very early in hot beds, hardened off by gradually exposing to outside air, and as early as the ground is in good condition, transplanted, setting 18 to 36 inches apart, according to size of variety. The late Autumn and Winter varieties may be sown from the middle to the last of Spring and transplanted when four to six inches high. Shade and water the late sowing in dry weather to get them up.



Early Jersey Wakefield

1085—Early Jersey Wakefield. The earliest and hardest heading of first early cabbages. Most gardeners depend upon it for the bulk of their extra early crop. Its exceeding hardness not only to resist cold but other unfavorable conditions, insures the greatest likelihood of profitable and satisfactory results. Our stock is grown and selected with the greatest care. There is none better and few as good. Head conical, very compact, solid and of excellent quality. The thick, stout leaves and compact habit of this variety make it the best sort for very early setting. Highest quality seed. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

Note—Use "Snarol" for Your Garden. Kills Cut Worms, Slugs, Snails.

1086—Copenhagen Market. A new extra early globe-shaped cabbage slightly flattened. The large solid heads are very uniform, with few other leaves. Keeps well and stands handling. Copenhagen Market originated in Denmark, where it is the favorite market variety, and we recommend it to our customers as the best early round head. Gardeners should give it a trial. Our stock is direct from the originator. Pkt., 5c; oz., 35c; ¼-lb., \$1.10; lb., \$3.50.

1087—Early Winningstad. A desirable variety having conical, solid heads; a sure header under almost any condition, and keeps better than most early varieties. Fine appearance and of excellent quality. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

1088—Large Wakefield or Charleston. The heads are of similar form, though not so pointed, but of equal solidity as the original Jersey Wakefield, while they grow half again as large, reaching full size about ten days later. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

1089—Early Summer. Large, solid, round, flattened, compact heads of excellent quality; the plant has a peculiar bluish tinge. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

1090—Early Flat Dutch. An early, hard-heading variety of fine quality and a standard type. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

1091—Golden Acre. This is quite similar to the popular Copenhagen Market, but somewhat smaller and earlier. A uniform, tightly folded and well-blanching head of superb quality. Pkt., 5c; oz., 40c; ¼-lb., \$1.25; lb., \$4.00.

1092—Premium Late Dutch. Best for winter use; round or slightly flattened heads; stands freezing well. A good keeper and of excellent quality. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

1093—Danish Ball Head or Cannon Ball Long Stemmed. This is one of the hardest cabbages in cultivation and endures both frost and drouth that would destroy other varieties. Plants rather long-stemmed, but compact; leaves very smooth, but thick; head of medium size, round and very solid, being the hardest heading cabbage we know of, and of the very best quality. Matures quite late, keeps well, and is considered by many the best cabbage to hold over for spring markets. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

1094—Danish Ballhead, or Cannon Ball. Short stem. Very round, solid winter sort, largely grown in Denmark for the London market. A fine shipper. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

1095—Red Drumhead. A large, very solid, late red cabbage, much used in pickling. Good keeper and a favorite with the ladies. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.00.

1096—Drumhead Savoy. This is the finest of the Savoy cabbages, and a general favorite; of excellent flavor, surpassing that of any other late cabbage. Stands freezing well. Pkt., 5c; oz., 35c; ¼-lb., \$1.25; lb., \$3.75.

1100—Chinese Improved or Pe-Tsai. The strain we offer resembles when well grown Cos Lettuce rather than Cabbage. It is often called Celery Cabbage on the market. The leaves when young are crimped, of light green color and appear like smooth leaved mustard but with much broader and heavier midribs. The plant as it matures becomes more upright and forms heads much like Cos Lettuce. The inner leaves blanch an attractive light yellow or creamy white with very white midribs. It is of distinctive flavor, very mild and pleasant. It is served as a salad like lettuce or cooked like asparagus. Sow in this latitude after July 1st at the same time as turnips. Pkt., 5c; oz., 25c; ¼-lb., 75c; lb., \$2.50.

SPRAY

Blackleaf "40" to Kill Cabbage Aphis.

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

CAULIFLOWER

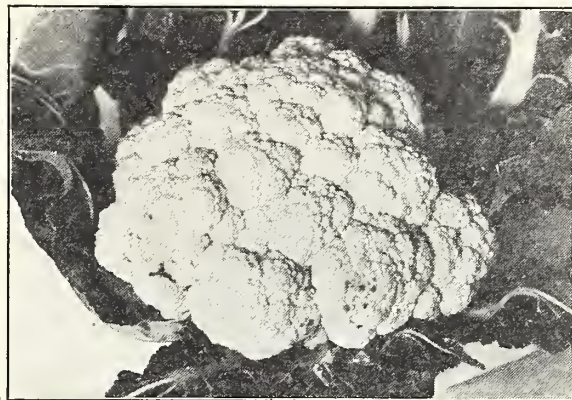
CULTURE—The same as for cabbage, except that extra manure and plenty of water will pay upon cauliflower. If the soil be dry, water frequently, and if the plants have a heavy mulch of hay or straw, it will keep the soil moist, and they will not suffer from drought. The early kind should be strong enough to plant out not later than the middle of April; the late kinds may be planted out the same time as cabbage.

1120—Poole's Mt. Tacoma Cauliflower. The earliest of all. Produces large, heavy, solid, white heads of finest quality. Undoubtedly the best variety. Pkt., 25c; ¼-oz., \$1.25; ½-oz., \$2.25; oz., \$4.00.

1121—Extra Early Snowball. This variety is much in demand by market gardeners for main crop. Its earliness, compact habit, large-sized heads and snow-white color recommend it to every grower as a variety of special merit. We have an extra selected stock of this sort, and recommend it with the greatest confidence. Pkt., 15c; ¼-oz., 65c; ½-oz., \$1.25; oz., \$2.25.

1122—Danish Giant—Dry Weather Cauliflower. Danish Giant is an early, large, solid white Cauliflower that can successfully withstand a drouth that would prove fatal to other varieties and will thrive splendidly in dry sections, being peculiarly adapted to their growing conditions, but like all cauliflower must have rich soil and cultivation to give best results. Danish Giant can also be grown under moist conditions and is a dependable market variety. Pkt., 15c; ¼-oz., 75c; ½-oz., \$1.25; oz., \$2.00.

1123—Early Paris. Very early. The heads are rather small but are solid and of fine quality. Pkt., 15c; ¼-oz., 35c; ½-oz., 65c; oz., \$1.25.



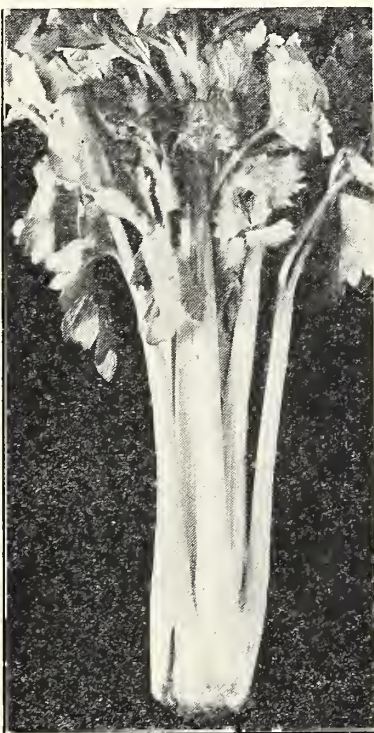
1124—Large Algiers. A valuable late sort, sure to head, of the best quality and very popular with market gardeners everywhere. Plants large, but of upright growth, the leaves protecting the heads so that they will endure, uninjured, a frost that would ruin other sorts. One of the very best of the late varieties. Pkt., 10c; ¼-oz., 35c; ½-oz., 65c; oz., \$1.00.

1125—Autumn Giant. The heads are white, large, compact and thoroughly protected by foliage. Pkt., 10c; ¼-oz., 35c; ½-oz., 65c; oz., \$1.25.

CELERY

CULTURE—Sow the seed early, about February, in a hot-bed or cold frame. When three inches high, transplant, setting them four inches apart. When grown six inches and fine, stocky plants, set in richly manured, deep soil, in rows three and a half feet apart and about nine inches from plant to plant. Water if dry weather follows transplanting. During the next two months all the attention that is required is to keep down the weeds. Blanch by placing boards along the rows, or earth up a little, and continue doing so at intervals until only the tops of the leaves are visible late in Autumn. Never hoe up the earth when plants are wet. One ounce of seed produces about six thousand plants.

1130—White Plume, the Leading White Celery. A handsome, crisp sort, of very easy



cultivation. Naturally its stalks and portions of its inner leaves and heart are white, so that by closing the stalks either by tying or by simply drawing the soil up against the plant and pressing it together, the work of blanching is completed without the troublesome process of "banking" or "earthing up." It is the earliest celery known. Pkt., 5c; oz., 25c; ¼-lb., 75c; lb., \$2.50.

1131—Golden Yellow Self-Blanching. This is no doubt the best celery for early spring market use. Plants of a yellowish green color when young, but as they mature the inner stems and leaves turn a beautiful golden yellow, which adds much to their attractiveness and makes the work of blanching much easier. French grown. Pkt., 10c; oz., 50c; ¼-lb., \$1.75.

1132—Winter Queen. This is without doubt the most valuable variety of celery for winter and spring use ever introduced. Has double the amount of heart of any known celery. The plant has a fine appearance, of compact growth, and blanches to a beautiful cream-white. Ribs perfectly solid, crisp and a delicious nutty flavor. Stored for winter or spring use, it is an excellent keeper and when taken out the blanched stalks will be firm and crisp; entirely free from strings; brittle and of sweet flavor. Pkt., 5c; oz., 25c; ¼-lb., 75c; lb., \$2.50.

1133—Giant Pascal. Largest variety grown; of fine nutty flavor; very easily blanched. Pkt., 5c; oz., 25c; ¼-lb., 75c; lb., \$2.50.

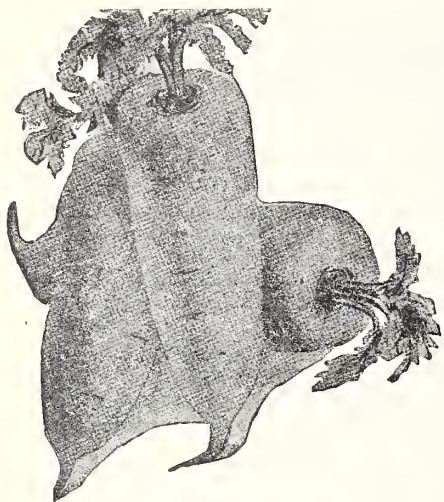
Celery Seed—For flavoring. Oz., 10c; ¼-lb., 20c; lb., 65c.

CELERIAC (Turnip Rooted Celery)

1135—Large Smooth Prague. An improved form, producing large smooth roots, which are nearly round. Pkt., 5c; oz., 25c; ¼-lb., 75c.

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CARROTS—For Table and Stock



Chantenay

half to one inch deep and see to it that the soil is well firmed above the seed.

1105—Early Scarlet Horn—The best early kind for general use. It is larger than the forcing variety, but fully as good in quality, and produces a much larger crop. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 40c; lb., \$1.25.

1106—Chantenay. The market gardener's favorite. Tops, medium sized; necks, small; roots, tapering slightly, but uniformly stump-rooted and smooth; color, deep orange red; flesh, very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any, is a heavy cropper, and is undoubtedly one of the best for both the market and private garden, while its great productiveness makes it very desirable as a field sort. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1107—New Coreless. A splendid new carrot. Larger than other early varieties. Crisp, solid, of fine flavor and almost coreless, grows smooth and uniform, a true stump rooted type. The very best for canning or drying as it is nearly coreless and has no tap root to trim off and waste. Holds its color and cooks quickly. The ideal carrot for home gardens. Pkt., 10c; oz., 20c; $\frac{1}{4}$ -lb., 45c; lb., \$1.25.

CULTURE — A sandy loam is the best soil for the carrot, but any good land, if thoroughly and deeply worked, will produce satisfactory crops. Sow as early in the spring as the ground is fit to work, though good crops may be grown as late as June 15. For table use, sow the smaller kinds in rows 16 to 18 inches apart, and for the field culture prepare the ground thoroughly and sow in drills 18 to 24 inches apart. Cover one-

1108—Danver's Half Long. Grown largely on account of its productiveness and adaptability to all classes of soil. Tops medium sized, coarsely divided. The smooth, handsome roots are of medium length, tapering uniformly to a blunt point; flesh, sweet, crisp, tender; deep orange in color. Although the roots of this variety are short, they produce as large bulk as the longer field sorts and more easily harvested. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1109—Oxheart. A thick carrot, five or six inches long and very blunt at the lower extremity. It grows very rapidly and the root attains a weight of more than a pound. It is tender and of good flavor. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1110—St. Valery or New Red Intermediate. Roots very smooth and regular in growth; of large size, from 10 to 12 inches in length, and 2 to 3 inches in diameter at the top, tapering gradually throughout. The flesh is a rich, deep orange-red, free from hard core. Called the "Pointed-rooted Danvers." Pkt., 10c; oz., 20c; 4 ozs., 40c; $\frac{1}{2}$ -lb., 65c; lb., \$1.15.

1111—Orange, Improved Long. Popular for farm use on deep, mellow soil. Our stock is an improvement obtained by years of careful selection of the best formed and deepest colored roots, which grow to a large size, some specimens averaging twelve inches in length. Enormous crops can be grown under fair culture; one of the best varieties for feeding stock. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1112—Large White Belgian. Extensively grown for stock feeding; very productive. Grows so much above the ground that the entire crop can be pulled by hand. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1113—Poole's Yellow Giant. This is similar to the preceding in growth and form, but skin of the portion growing below the soil is of a pale orange coloring. The flesh is light orange. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c. lb., \$1.00.

1114—Improved Short White—"Mastodon" Of excellent table quality. Ranks as a field carrot, owing to its enormous productiveness and the ease with which it can be harvested. Roots half long, smooth, very heavy at the shoulder, but tapering regularly at the point; color, light green at the crown, white below; flesh, rich, white, solid, crisp and of excellent flavor. Pkt., 10c; oz., 20c; $\frac{1}{4}$ -lb., 40c; lb., \$1.00.

CARDOON

Sow early in spring, $\frac{1}{2}$ to 1 inch deep, in rows 3 to 4 feet apart, where the plants are to stand, and thin them, when well up, to 2 feet apart. Soil should be moist, rich and deep. When full size, bind them together with raffia, and earth up like celery. The stems of the leaves are used for salads, soups and stews.

1116—Large Solid. Smooth; grows about 4 feet high; leaves nearly free from spines. Pkt., 10c; oz., 40c; $\frac{1}{4}$ -lb., \$1.25.

CHICORY

1140—Witloof. Known in restaurants as French Endive. Sown in May and June in drills. Transplant or thin to 6 inches; treat as endive, except that in late summer or fall it should be gradually banked up like celery. The stalks, when blanched, make a delicious salad. It is also used by the French as a boiled vegetable. Pkt., 5c; oz., 25c; $\frac{1}{4}$ -lb., 60c; lb., \$2.00.

CHERVIL

1145—Curled. This plant is used for flavoring soups and salads and has a strong perfume. Pkt., 5c; oz., 25c; $\frac{1}{4}$ -lb., 80c.

CORN SALAD

1150—Petticus, or Lamb's Lettuce—A refreshing salad, used extensively in winter and spring as a substitute for lettuce. It is often cooked like spinach. Sown in drills one foot apart, in the spring or fall. On the approach of cold weather cover over with straw or coarse litter. Pkt., 5c; oz., 30c; $\frac{1}{4}$ -lb., \$1.00.

COLLARDS

1151—True Georgia—Used as "Greens" mainly in the South and West. As the leaves are pulled off, others grow in their places. Pkt., 5c; oz., 20c; $\frac{1}{4}$ -lb., 65c.

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

SWEET or SUGAR CORN

CULTURE — Corn should not be planted until the ground is warm, as the seed will rot in cold damp soil, or if planted too deep. Late April is early enough for the first plantings and for succession.. plant.. every two.. weeks.. through May and June. Cover the first planting very lightly, increasing the depth a little for the later plantings. For the Dwarf Early varieties, rows should be three feet apart for later varieties, four feet, and the hills two to three feet in the rows.

Sweet or Sugar varieties are used both for table and stock feeding, some of the larger later sorts being preferred for silos and fodder.

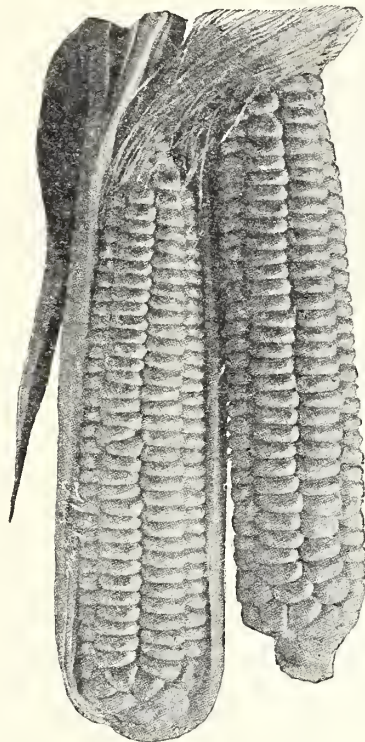
POP CORN

White Rice Pop Corn. Best variety for popping corn. For seed, per lb., 30c.

1160—White Cob Cory—An improvement on the Red Cobbed Cory, as well as being equally early. The ears are larger, and it has the further advantage of having both a white cob and white grain. A splendid market garden variety, and excellent for the table. Pkt., 10c; lbs., 25c; 10 lbs., \$2.25.

1161—Early White Cory, Mammoth—The stalks are no larger than those of the White Cob Cory, but each stalk furnishes two or more large, fine-shaped ears, which are fit for use before those of most other sorts. The ears are 12-rowed, very symmetrical and handsome. The grain is large, broad, very white, and of remarkably good quality. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1162—Early Evergreen. An improvement on Stowell's



similar in appearance and general character, but a week or ten days earlier, and remaining fit for use somewhat later than that well-known sort; equal to Stowell's in all other respects. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1163—Golden Bantam—It is the sweetest and most deliciously flavored sweet corn that has been grown, and has no equal for the home garden or early market. In flavor it is equaled by none.

The ears are short, thick, and compactly filled with large, plump, creamy-yellow kernels, which become golden-yellow as they ripen. The stalks are of dwarf habit, sturdy and very productive. It is one of the hardiest varieties, may be planted early, and is especially adapted to the Northwest. Pkt., 10c; lb., 25c; 10 lbs., \$2.25.

1164—Black Mexican—This sweet corn, when young, cooks remarkably white, but the ripe grain is black. It is an excellent late variety. The stalks grow about six feet high, and the ears about eight inches long. The kernels are tender, sweet and delicious. Pkt., 10c; 1 lb., 30c; 10 lbs., \$2.50.

1165—Peep-o'-Day—One of the earliest; very sweet and of delicate flavor. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1166—Early Minnesota—This old and deservedly popular variety is one of the best early sorts for the market and private garden. Pkt., 10c; lb., 25c; 10 lbs., \$2.25.

1167—Country Gentleman—Valued for its richness of flavor and productiveness, having 3 to 4 good ears to the stalk, all extra large, with exceedingly deep kernels. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1168—Stowell's Evergreen—Remarkable for remaining a long time in a fine condition, suitable for the table. Hardy and productive, tender and sugary, and the best late variety for general use.—Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1169—Portland Market—An Oregon introduction, a very early, large eared sweet corn and very productive. Its large well-filled ears, together with its plump, sweet grains of purest white, makes it a most profitable home or market variety. Very popular with our market gardeners. Large pkt., 10c; ½ lb. 15c; lb. 30c; 10 lbs. \$2.75.

1170—Golden Giant. A cross between Burpee's Golden Bantam and Burpee's Howling Mob. It matures about a week later than Golden Bantam. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

FIELD CORN

Write for our Prices per 100 lbs., on any kind

Field Varieties are grown for fodder and for ensilage in the Pacific Northwest more than for grain, but of recent years improved early varieties have given good results and splendid crops are reported from many sections where it was thought corn could not be grown.

1182—Pride of the North, or Yellow Dent—Recommended after repeated tests by the Agricultural College, as the best for Washington, Eastern Oregon and Idaho. A quick growing dent variety, thriving well where the Summers are not very long. Bright golden color. Lb., 15c; 10 lbs., \$1.00.

1183—Minnesota No. 13, Yellow Dent—A variety of great promise, being the earliest of the yellow dent corns and reported to be the heaviest yielding. Producing splendid large ears, closely filled from end to end with bright yellow kernels. Has rather a thick cob and the shelled grains have a tendency to irregularity. Minnesota No. 13 will average 7 feet high and being a

rapid, vigorous grower, with heavy foliage, makes a fine fodder corn. Will mature in 90 days under favorable conditions. Lb., 15c; 10 lbs., \$1.00.

1184—Golden Glow—Wisconsin No. 12 Cold Resistant Strain. Is a fine product of "Minnesota No. 13," crossed with "North Star." It is very early and develops ears of good size, 8 inches in length, slightly tapering. The kernels are of medium depth, slightly rough. The cob is large enough to aid early drying, but is not too large. This is a very strong growing plant with plenty of foliage, which enhances its value for fodder. Prize winner for Wisconsin. Sixteen to twenty rows, deepkerneled, uniform type of early variety. 1 lb., 15c; 10 lbs., \$1.00.

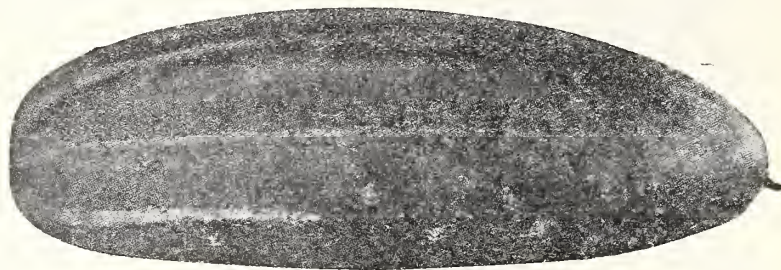
1185—Wisconsin White Dent—Wisconsin White Dent is a large, handsome White Dent, extremely early and matures perfectly, and is the best White Dent Corn for Washington and Oregon. Lb., 15c; 10 lbs., \$1.00.

Write for Prices on Larger Quantities.

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

CUCUMBER

CULTURE — Cucumbers need a warm, rich soil, and should not be planted in open ground until weather is settled, as otherwise they will not thrive. Plant in hills four feet each way, thinning to three or four of the strongest plants



after danger from insects is passed. As fast as the cucumbers attain suitable size they should be taken from the vine, whether required for use or not, as their ripening soon destroys the vine's usefulness.

Improved White Spine

1200—Early Green Cluster. One of the extra early varieties. A great bearer; fruit small, dark green and borne in clusters of excellent quality. Pkt., 5c; oz., 15c; ¼-lb., 50c; lb., \$1.50.

1201—White Spine, Improved Early. A selection of improved White Spine. Earlier, more perfect in shape and more prolific; best slicing variety; splendid either for home garden or market. Pkt., 5c; oz., 15c; ¼-lb., 50c; lb., \$1.50.

1202—Arlington White Spine—One of the best sorts for table use. Vines vigorous, fruiting early and abundantly. Fruit uniformly straight, light, bright green in color, with a few white spines. Flesh crisp, tender and of excellent quality. Pkt., 5c; oz., 15c; ¼-lb., 50c; lb., \$1.50.

1203—Cool and Crisp—Extra early and very prolific; long, straight, slender and very dark green; good either for pickling or slicing. Pkt., 5c; oz., 20c; ¼-lb., 50c.

1204—Davis Perfect—Fine for forcing or for outdoors. The fruit is long and straight, and being a comparatively shy seeder, is very valuable for slicing. Pkt., 5c; oz., 15c; ¼-lb., 50c; lb., \$1.50.

1205—Japanese Climbing. Often used for ornamental purposes, as the vines are very vigorous, throwing out tendrils, enabling them to climb trellises admirably. Dark green fruit, quite large and very tender. Pkt., 5c; oz., 20c; ¼-lb., 60c.

1215—DILL—Long Island Mammoth. The flower heads and seed are used in soups, stews and pickles; leaves have same flavor and can be used in like man-

1206—Improved Long Green—The leading large variety. Fruit from 10 to 12 inches long, dark green, crisp and tender. A good variety for slicing, and when ripe they are the best for sweet pickles. We offer "Highest Quality" seed that will grow long and uniform fruit. Pkt., 5c; oz., 15c; ¼-lb., 50c; lb., \$1.50.

1207—Lemon Cucumber—This dainty little cucumber resembles a lemon both in form and color, having a distinctive flavor superior to and not found in any other cucumber. The Lemon Cucumber is so prolific that a single vine will be ample for the needs of the average family. It is also said that the Lemon Cucumber can be eaten without fear of the harmful results that some experience from eating cucumbers. Pkt., 10c; oz., 25c, ¼-lb., 75c; lb., \$2.50.

1208—Boston Pickling—A distinct variety, very popular for pickles; color bright green, a great producer and of excellent quality. It is for producing medium-sized pickles that this variety is so highly esteemed. If the fruits are gathered as soon as large enough, the vines will continue bearing through a long season. Pkt., 5c; oz., 15c; ¼-lb., 50c; lb., \$1.50.

1209—Chicago or Westerfield Pickling—Fine for ket gardeners. Medium length, pointed at each end; has large spines, deep green, very prolific. Good for pickling. Pkt., 5c; oz., 15c; ¼-lb., 50c; lb., \$1.50.

ner. The flavor for cucumber dill pickles. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.25.

CRESS

1190—Curled or Pepper Grass—This salad is much used with lettuce, to which its warm, pungent taste makes an agreeable addition. The seed should be sown in drills about 16 inches apart, on very rich ground, and the plants well cultivated. It may be planted very early. Pkt., 5c; oz., 20c; ¼-lb., 50c; lb., \$1.50.

1191—True Water—One of the most delicious of small salads, and should be planted wherever a suitable place can be found. The seed should be sown and lightly covered in gravelly, mucky lands, along the borders of small, rapid streams. Under favorable conditions they increase very rapidly by self-sown seed and extension of the roots. Pkt., 5c; oz., 60c; ¼-lb., \$2.00.

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

EGGPLANT

1220—New York Improved Spineless. Considered the best variety. Oval shaped, deep purple, large size and fine flavor. Pkt., 5c; oz., 70c.

ENDIVE

CULTURE—This is a hardy vegetable, cultivated principally for a Winter salad. Sow from May until August for a succession of crops; tie the leaves closely together to blanch them.

1225—Green Curled. Standard sort for Fall and Winter. Pkt., 5c; oz., 15c; ¼-lb., 50c.

1226—White Curled. A beautiful variety, with curled, mossy leaves, for early use. Pkt., 5c; oz., 15c; ¼-lb., 50c.

1227—Broad Leaved Batavian (Escarolle). Has broad thick leaves, which form a large, loose head. Pkt., 5c; oz., 15c; ¼-lb., 50c.

KALE or BORECOLE

A species of Cabbage, forming a mass of leaves. The leaves are cooked as greens. Should be planted late, as the cold weather improves it. It is hardy and will withstand cold weather.

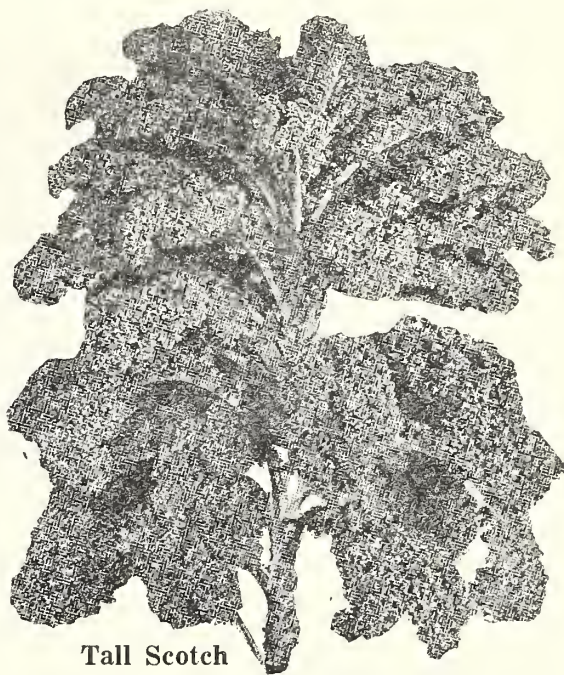
CULTURE—Seed should be sown thinly in drills, about the middle of June for the tall sorts; transplant the young plants twelve inches apart in rows three feet apart. Later in the season the dwarf sorts may be sown rather thickly in drills to furnish small heads to be cooked like spinach. One ounce to 100 feet of drill.

1230—Dwarf Green Curled Scotch. Noted for its extreme hardness, dwarf, compact habit and extra fine curled leaves. Pkt., 5c; oz., 20c; $\frac{1}{4}$ -lb., 60c; lb., \$1.75.

1231—Tall Green Curled Scotch. Heads are formed on stalks two and a half feet high. Color bright green and leaves are exceedingly curly. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., 90c.

Poultrymen should plant some of Tall Curled Scotch Kale for emergency caused by loss of 1000 head in extremely cold weather. The Scotch Kale is perfectly hardy in this state.

1232—Thousand Head Kale. Is almost indispensable as a green feed for stock and poultry through the winter. The plants are hardy and thrifty, producing a heavy tonnage per acre and may be left in the field until wanted for feed. It is an ideal feed for dairy cows. Quarter-pound will produce sufficient plants for one acre. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 20c; lb., 60c.



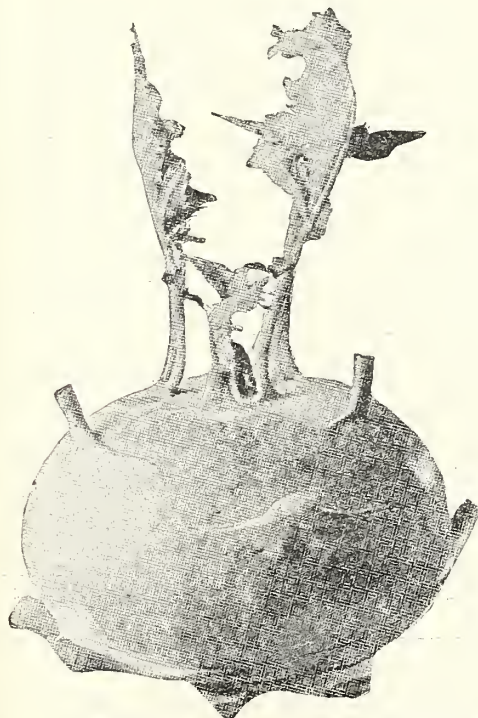
Tall Scotch

KOHL RABI

Hardy and of easy culture. Grown from plants the same as cabbage. The Kohl Rabi is a vegetable intermediate between the cabbage and turnip and combines the flavor of both. The edible part is a turnip-shaped bulb formed by the swelling of the stem. Kohl Rabi is far superior to cabbage or turnips in the delicacy of its flavor, and is a splendid addition to every garden. It should be eaten before growth ceases.

1240—Early White Vienna. Very early; bulb white; best table variety. Pkt., 5c; oz., 25c; $\frac{1}{4}$ -lb., 75c.

The cost of the very Best Seeds is so small, compared with the value of the resulting crops, that sensible planters know they cannot afford to risk seeds of doubtful pedigree—and we know just as well that we cannot afford to risk our hard-earned reputation by selling stock of uncertain character.



Early White Vienna

LEEK

The Leek belong to the Onion family. Prized for soups. Cultivation similar to that of Onions, but should be hilled up about the neck to blanch it.

—1245 Large Rouen, or American Flag. A large favorite American sort. Pkt., 5c; oz., 30c; $\frac{1}{4}$ -lb., \$1.00.

PLANET JR. DRILLS AND CULTIVATORS

A Planet Jr. Seeder will soon save enough seed to pay for itself; gives a better stand and makes cultivation easy. Saves time and money.

LETTUCE



1254—New York, or Wonderful. This is the mammoth head lettuce so popular in California from whence it is shipped to the Northern markets, arriving in splendid condition. The immense heads are solid, heavy, beautifully blanchd to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. New York is a hardy, rapid grower, deep rooted and resistant to drought; a slow seeder and sure to head. Pkt., 5c; oz., 25c; ¼-lb., 75c; lb., \$2.00.

1250—Grand Rapids For Early Forcing. As a Lettuce for green house forcing this variety undoubtedly stands at the head of the list. Gives quick growth, and stands for some days after being cut. The plant is upright, and forms a loose head or cluster of large, light yellowish green leaves, slightly crimped and blistered, rather thin, good flavor, crisp and tender. It will stand shipping better than most curled sorts. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1251—Simpson's Early Curled. A leading market variety for very early planting and forcing. Forms a dense mass of finely curled and wrinkled leaves that are excellent and tender, and do not wilt readily. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1252—Black Seeded Simpson. Forms a close, compact mass of curly leaves of a yellowish green. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1253—Early Prize Head. Standard sort; one of the best thin leaved, clustering varieties. The very large leaves are savoyed or crimped, bright green, tinged with red, and are exceedingly tender, crisp and sweet, forming a large, loose head. One of the best for the garden, but not good to ship long distances. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1256—May King. A large growing, smooth leaved, richly flavored sort. Plant, light green, with round leaves, which form into a very solid, compact, round head; stands a long time without running to seed. Inner leaves blanch to a rich, golden yellow. Exceedingly rich, tender and buttery. Fine for open ground or forcing. For succession plant in Spring, then in August and again in September. Pkt., 5c; oz., 20c; ¼-lb., 60c; lb., \$2.00.

1257—Big Boston. This is a fine forcing variety for cold frames during the winter months, as it produces heads of very large size in a cooler temperature than

most forcing strains. Large heads are beautifully blanchd and of superior quality. It heads well in the open ground during cool weather of spring and fall, and is very popular in the South to grow for shipping North. Our seed is an extra selected strain. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1258—Hanson. Grows to large size, and is uniformly sure of heading. Heads very solid and beautifully flushed, crisp, mild and tender. One of the finest varieties to grow for market during the summer months. Our stock is unexcelled. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1259—California Cream Butter. A fine large butter head lettuce of the richest flavor, tender, sweet and crisp; a great favorite in California, being a popular market variety, medium early. The heads are very broad, often measuring eight inches across and continue to grow for two or three weeks after they are ready for use, and are very slow to seed. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1260—Brown Dutch. Forms a large, solid head, sweet, tender and of good flavor. Outer leaves are tinged with brown. Very hardy. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1261—White Paris Cos or Romaine. A distinct variety, forming oblong, upright heads, largest near the top. It is hardy, tender and crisp, and does not run to seed as quickly as some other Cos varieties. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

1262—Chicken. A rough, tall lettuce grown only to supply lots of chicken feed. Forms no heads. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

Several hundred cars of this lettuce are grown and shipped from the Puyallup valley to Eastern cities every year and the seed we handle has been found to head better and with greater uniformity than any other strain sold. It is sold as Iceberg Lettuce on the eastern markets.

1255—Iceberg. A beautiful lettuce. Large, curly leaves of bright, light green, with a very slight reddish tinge at the edges. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.50.

NOTE—Use Dupont Semesan, the Seed Disinfectant—Better Crops and Germination.

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

ONIONS

ONIONS FOR DRYING

1294—Yellow Globe Danvers. This is the type most widely known and used as a main crop variety. A very handsome, round or globe-shaped variety of large size, with thin, yellowish skin, white flesh, fine grained, mild, very firm, and the best of keepers. Ripens early. Pkt., 5c; oz., 35c; ¼-lb., 75c; lb., \$2.50.

1295—Flat Yellow Danvers. Same as Globe Danvers, except in shape. Pkt., 5c; oz., 35c; ¼-lb., \$1.00; lb., \$3.50.

1296—Prizetaker, The Genuine. Of fine flavor, handsome shape and enormous size. A perfect globe shape, with a bright straw-colored skin; the necks are very small and the onion always ripen up hard. Pkt., 5c; oz., 40c; ¼-lb., \$1.25; lb., \$4.00.

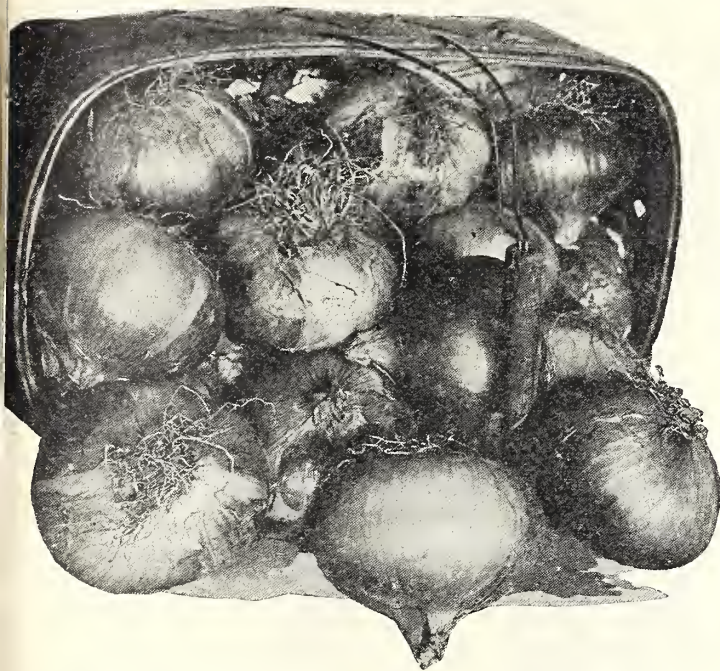
1297—Australian Brown. This onion resembles the Oregon Yellow Danvers in general appearance, but has a clear, amber-brown skin that attracts buyers. It matures early, ripens uniformly and will keep in good condition longer than any other onion. We offer the true seed. Pkt., 5c; oz., 35c; ¼-lb., 75c; lb., \$2.50.

1298—Large Red Wethersfield. A standard variety; one of the most productive kinds, even in poor soil. Its good keeping qualities render it one of the best for shipping. Pkt., 5c; oz., 35c; ¼-lb., 75c; lb., \$2.50.

Onion Sets—Bottom Onion Sets, yellow. Lb., 15c;

Bottom Multiplier Onion Sets. Lb., 15c.

GARLIC—Market Prices



BUNCHING ONIONS

CULTURE—Sow 2½ or 3 pounds of seed per acre, as early in the season as the ground can be put into proper condition, using some good fertilizer such as our Special Onion Fertilizer, or manure supplemented with Bone Meal, Muriate of Potash, and in some cases Nitrate of Soda, the latter often being used after the plants are up, while the other fertilizers are worked into the soil before the seed is sown.

Thorough clean cultivation and thinning during the growing season is necessary.

In the Fall the tops of the Onions will naturally fall to the ground and shrivel up and the roots let go their grip on the soil, then the Onions should be lifted and allowed to dry off for a day or two before storing away. If the weather remains too wet to dry off in the fields, the Onions may be put under open sheds for a while where there is a good circulation of air.

In case the tops do not die naturally, they may be broken down and so cause the bulbs to ripen quicker but such Onions will not make good keeping bulbs, and should be disposed of as soon as possible.

To be sure of a good crop, sow none but the best seed—it may cost a little more than a cheaper grade of seed, but it is worth more than the difference in the price. One ounce will sow 100 feet of drill.

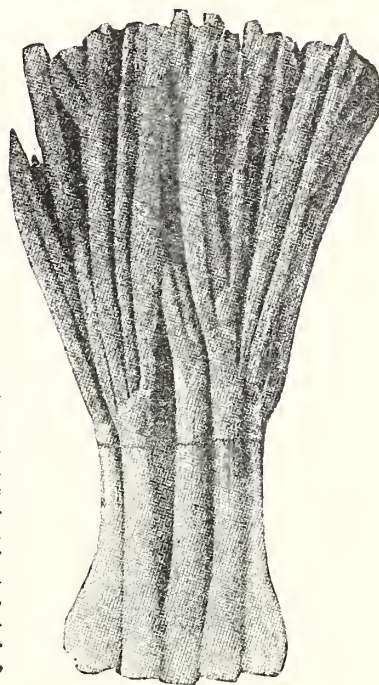
1292—White Globe. Yields abundantly and, as a table variety, its clear white color is exceptionally attractive. Pkt., 5c; oz., 35c; ¼-lb., \$1.00; lb., \$3.50.

1293—White Barletta. A small, pure white, mild onion; fine for pickles. Pkt., 5c; oz., 35c; ¼-lb., \$1.00; lb., \$3.50.

1290—Early White Queen. If sown thickly

produces small, very firm bulbs, the best of all for pickling, and is especially useful to market gardeners for producing an attractive "green onion." If given more room, matures an excellent onion, that will keep all winter. Pkt., 5c; oz., 30c; ¼-lb., \$1.00; lb., \$3.50.

1291—White Portugal, or Silver Skin. This variety is one of the leading white sorts and is of beautiful shape and very mild flavor. The bulbs are flat in shape and mature early. It is a splendid variety for both family use and the market gardener, and also for its good keeping qualities. Pkt., 5c; oz., 40c; ¼-lb., \$1.25; lb., \$4.00.



WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

DWARF PEAS

Garden Peas are one of the most important crops, and we have spared no effort to select and improve the best strains of the most profitable and satisfactory varieties. These selected strains, grown under our direct supervision for many years, will give you the biggest yield and the handsomest, sweetest, best flavored Peas for the early market or home garden. The varieties offered have proved by growing tests to be the best of their kind and class. **Selected Hand Picked.** When ordering Peas to be forwarded by mail add postage.

CULTURE—Peas can be grown in every garden, but for the earliest varieties a light, warm, moderately rich soil is most suitable. The smooth kinds can be sown as soon as the ground can be worked, but the wrinkled varieties should not be planted till it is warmer, or they will rot. Sow in single or double rows from 1½ to 3 inches apart, dropping a pea every inch and covering from 2 to 3 inches deep. For a succession sow every ten days up to July. Sow one lb. to 100 ft. drilled. Many planters sow one hundred pounds of seed per acre, but fifty pounds of seed per acre drilled in rows and well cultivated will produce larger pods and more peas per acre; besides, there will be less mildew.

1315—Alaska, or Earliest of All. By careful selection and growing we have developed a stock of this smooth pea of unequalled evenness in growth of vine and early maturity of pods which are filled with medium sized, bright green peas of good flavor. Vines two and one-half to three feet high. Seed small, and bluish-green in color. Matures all the crop at once and is an invaluable variety for market gardeners and canners. Pkt., 10c; lb., 25c; 10 lbs., \$2.25.

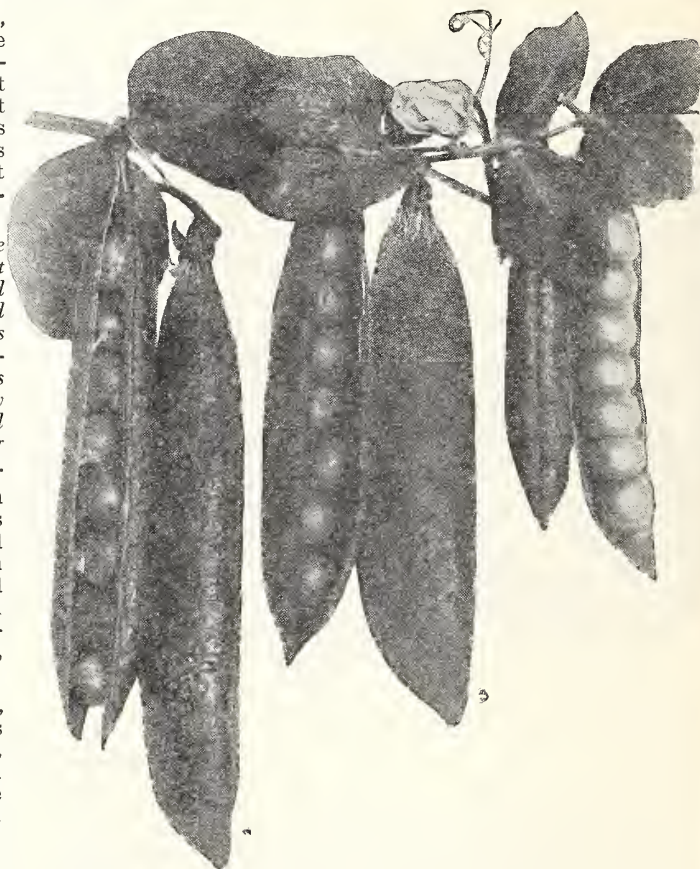
1316—American Wonder. The earliest of the dwarf, wrinkled varieties, vines branching, about ten inches high and covered with well filled pods of medium size, containing five to eight large, exceedingly sweet and well flavored peas. A great favorite for planting in the small garden on account of its short, compact growth. We have taken great pains in selecting our stock and know it to be much better than that usually sold. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1317—McLean's Little Gem. The vines are of dwarf growth and produce an abundance of round well filled pods of good size, about three inches long, only a few days after the American Wonder. The peas are green, wrinkled, of sweet, delicious flavor and excellent quality. One of the best for family use. It remains fit for use longer than the American Wonder and Nott's Excelsior, and thought by many to be sweeter. Height, 15 to 18 inches. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1318—Nott's Excelsior. A deservedly popular variety; an enormous yield, and of the very choicest flavor, pods well filled with six to eight peas, packed very closely together; valued highly for the home garden, and for all-round excellence is second to none; 15 inches high. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1319—Little Marvel. A splendid new dwarf pea, for home or market. The dwarf, bushy vines averaging 15 inches are loaded with firm, square-ended pods 2½ to 3 inches long, tightly filled with plump, luscious, deep green peas. Little Marvel is as early as American Wonder, fully equals the superb quality of Nott's Excelsior, and far outyields these two popular sorts. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

With vegetables at such high prices why not plant more of a garden? What is your back yard worth to you?



1320—Gradus. This extra early, wrinkled pea bears pods of large size and combines quality with earliness. It is very hardy; can be planted fully as early as the smooth peas; growth, vigorous and healthy; vines 2½ feet in height; very prolific. The quality and flavor are delicious and the peas remain tender and sweet for a long time. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1321—Laxtonian. A new, early, dwarf, robust, large podded pea of superior excellence; often referred to as "Dwarf Gradus," and is said to surpass Gradus in yield and quality, with the added advantage of dwarfed growth, averaging 16 inches. The large pods are well filled, holding 8 to 10 peas. Laxtonian is so highly recommended that you should give it a trial. In the past two or three years has proven one of the best varieties for early market in the Gig Harbor and Peninsula district. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1322—Thomas Laxton. A cross between Gradus and one of the extra-early sorts. Ripens within a day or two of the earliest round varieties; very productive. The pods are large and contain seven or eight large, wrinkled peas of the finest flavor. Height 3 feet. Pkt., 10c; lb., 35c; 10 lbs., \$3.25.

1323—Blue Bantam—Crop failure.

Peas continued on next page

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

PEAS—Continued

MAIN CROP VARIETIES

1325—Strategem. A semi-dwarf variety with large leaves and large pods. The peas are dark green, wrinkled and of good quality. It is planted in large quantities by gardeners for market. In quality it is unsurpassed, the peas when cooked being of the most delicious sweetness. Vines grow 18 inches to 2 feet high, and are very stocky. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

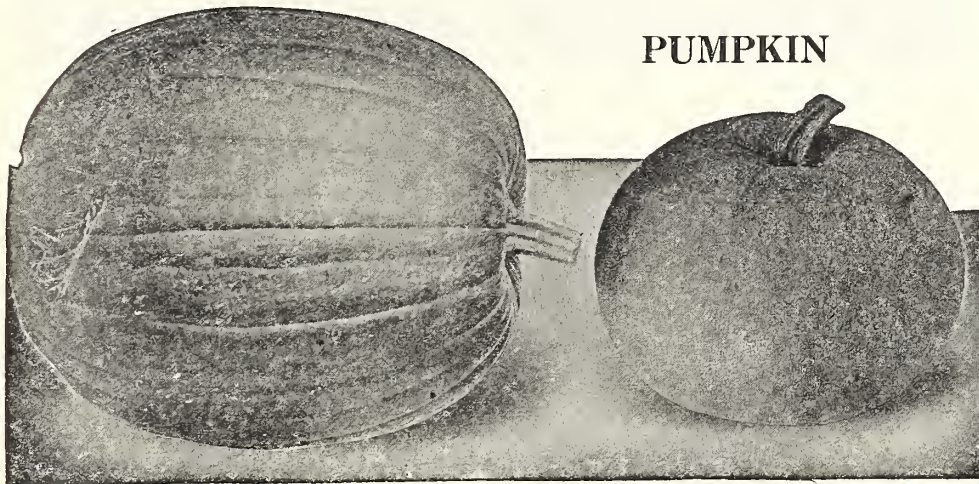
1326—Dwarf Telephone. Of English origin and introduction. The striking features are its large pods and the way in which they are heaped up in ridges on the short, strong vines. The pods are nearly double the size of American Wonder or Little Gem, and are always well filled with large peas of most excellent quality. The vines are dwarf, strong and thrifty, making an ideal garden variety. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1327—Tall Telephone. This variety has now come into general use, and is acknowledged to be of great merit. It is immensely productive, of the finest quality and excellent, sugar flavor; vines strong, the pods are of large size, filled with large, luscious peas; height four feet. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

Crop of Peas was very short and prices high—We have endeavored to keep our prices low as possible.

1328—Champion of England. A most popular and extremely productive pea, which has been valued for many years as the standard variety. Vines are of strong growth and very productive of large, well-filled pods. The flavor of the peas is delicious. Height, 5 feet. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.

1329—Mammoth Melting Sugar. Grows 4 feet tall, producing very large broad flattened pods. A great favorite with many. In the Edible-Podded or Sugar Peas the pods are gathered, broken and cooked like string beans when the peas start to develop in the pod or have reached about half their full size. Pkt., 10c; lb., 35c; 10 lbs., \$3.25.

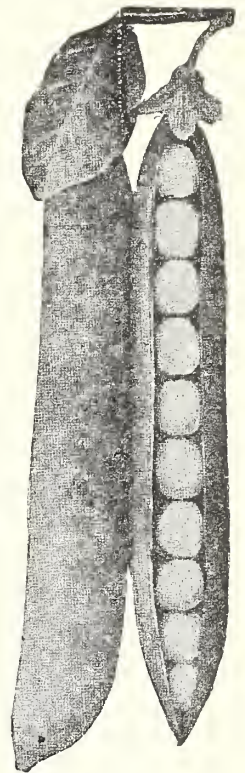


PUMPKIN

1346—Winter Luxury. The best flavored pie pumpkin grown; enormously productive; excellent keeper; medium size; color, golden-russet, finely netted; flesh, deep golden, sweet, tender and very thick; none better. Pkt., 5c; oz., 15c; ¼-lb., 30c; lb., \$1.25.

1330—Large White Marrowfat. Esteemed by some for its mealy, potato-like flavor. A very tall, hardy variety. Very productive but of inferior quality. Pkt., 10c; lbs., 30c; 10 lbs., \$2.50.

1331—Black Eye Marrowfat (Latc) A great yielder of ordinary quality peas. Pkt., 10c; lb., 30c; 10 lbs., \$2.50.



CULTURE—Plant early in May, in hills 6 to 8 feet apart. One pound of seed will plant about 300 hills.

1347—Large Yellow, or Connecticut Field. Large, round; deep glossy yellow. Vines vigorous and very productive; good keeper. Grown extensively for stock feeding. Pkt., 5c; oz., 15c; ¼-lb., 45c; lb., \$1.25.

1348 — Mammoth Tours. A productive French variety; grows to an enormous size. Pkt., 5c; oz., 15c; ¼-lb., 40c; lb., \$1.25.

1349 — Large Cheese. Of large size, shape flat like a cheese box very productive. Pkt., 10c; oz., 15c; ¼-lb., 35c; lb., \$1.00.

1345—Sweet, or Sugar. A handsome and productive; small pumpkin, ten to twelve inches in diameter; round flattened; skin, orange; flesh, deep yellow; fine grained and very sweet. Pkt., 5c; oz., 20c; ¼-lb., 45c; lb., \$1.50

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

MUSKMELLON

1265—Rocky Ford, or Miller's Cream. One of the best salmon fleshed melons; rust resistant, good keeper and shipper. Pkt., 5c; oz., 20c; ¼-lb., 45c; lb., \$1.50

1266—Osage. Coconut shaped; salmon flesh; dark green, netted skin. Pkt., 5c; oz., 20c; ¼-lb., 45c; lb., \$1.50.

NOTE—Our Musk Melon and Water Melon have made excellent crops at Rocky Bay and Vaughn, Wn.

WATERMELONS

1270—Sweetheart Oval; very large; bright skin; fine quality. Pkt., 5c; oz., 20c; ¼-lb., 45c; lb., \$1.25.

1271—Hungarian Honey. A very early sort; fine for northern latitudes; perfectly round; brilliant red flesh. Pkt., 5c; oz., 20c; ¼-lb., 45c; lb., \$1.25.

1272—Kleckley's Sweet, or Monte Cristo. Exceedingly sweet and fine flavored; dark green skin, thin rind; flesh scarlet. Solid and firm; long. Pkt., 5c; oz., 20c; ¼-lb., 45c; lb., \$1.25.

1273—Tom Watson. Produces melons 16 to 22 inches long and 8 to 10 inches in diameter. The dark green

For MUSTARD See page 19

rind is thin, but tough; stands shipping well. Flesh is deep red, crisp and of finest flavor. Pkt., 5c; oz., 20c; ¼-lb., 45c; lb., \$1.25.

1275—Red Seed Citron. Pkt., 5c; oz., 20c; ¼-lb., 45c; lb., \$1.25.

MUSHROOM SPAWN**1283—LAMBERTS PURE CULTURE SPAWN**

Mushrooms may be grown in any place where conditions of temperature and moisture are favorable. A shed, cellar or cave may be utilized to advantage for this purpose. It is essential that the temperature be maintained from 53 to 60 degrees F., and that the moisture be properly regulated. Lambert's pure Culture Spawn is far superior to the old-style varieties, and much better results can be obtained from its use. The bricks should be broken into pieces about two inches square and planted from 10 inches to a foot apart. Bricks weigh from 18 to 24 ounces. A brick will spawn 10 square feet of bed. With Lambert's Pure Culture Spawn it is impossible to raise poisonous mushrooms. Price, per brick, 40c.

OKRA OR GUMBO

1288—Dwarf Green Prolific. Short, thick pods. Pkt., 5c; oz., 10c; ¼-lb., 30c.

PARSNIPS

CULTURE—The Parsnip is nutritious and wholesome, with a sugary sweetness peculiar to itself, and is desirable both for the table and stock feeding. It yields a large crop, and is said to be more valuable for dairy cows than either the carrot or turnip. As the seed germinates very slowly, sow as early in Spring as possible, in drills fifteen inches apart on deeply cultivated, rich, loamy soil. Keep clear of weeds and thin to three or four inches apart. The roots of the parsnip are improved by freezing.

1303—Guernsey, Half Long. Root white, very tender, with a smooth, clear skin. Shorter and thicker than "Hollow Crown." Desirable for stiff soils. Pkt., 5c; oz.,



10c; ¼-lb., 30c; lb., \$1.00.

1304—Hollow Crown or Long White. Root very long, white, smooth, tender, sugary, and of most excellent flavor. Very hard; will keep through the Winter without protection. Pkt., 5c; oz., 10c; ¼-lb., 30c; lb., \$1.00.

PARSLEY

CULTURE—Parsley is very generally used for garnishing, and seasoning soups and stews. It can be used fresh from the garden, or dried and rubbed into a fine powder when it can be bottled for Winter use. It becomes finer and more beautifully curled if cut frequently. As the seed germinates slowly, it should be soaked a few hours in warm water, and sown in drills a foot apart and half an inch deep, as early in Spring as possible. Thin to three or four inches apart. Thrives best in deep, rich soil.

CULTURE—Sow the seeds early in hotbeds, or later, when the weather becomes warm, in open beds; when two or three inches high, transplant to a warm, mellow soil, in rows eighteen inches apart and a foot apart in the row. Guano and hen manure are excellent fertilizers, and will greatly increase the yield.

1305—Large Bell or Bull Nose. A large, mild, thick-fleshed variety. One of the best for stuffed pickles. Pkt., 10c; oz., 65c.

PEPPER

1306—Long Red Cayenne. Brilliant, coral-red pods, three or four inches long, and a prolific bearer. Very pungent, and used very largely with pickles when green. Pkt., 10c; oz., 65c.

1307—Sweet Spanish or Mountain. Similar to the large Bell, but usually larger. Excellent for pickling and stuffing. Pkt., 10c; oz., 65c.

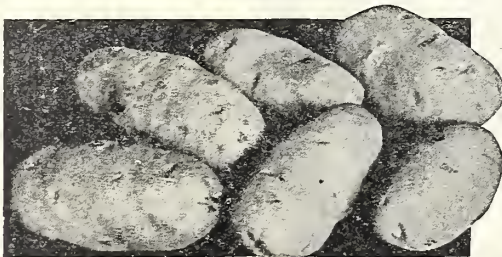
WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

POOLE'S CERTIFIED SEED POTATOES



Jas. Sales of Parkland, the first white child born in Pierce County, is shown sacking up a few Netted Gem Potatoes raised from Poole's Certified Stock. Jimmy Sales has been a valued customer of this firm for 35 years, and is noted for being a user of Quality Merchandise.

1335—Early Rose. (not certified) Strong vigorous vines of medium height. Flowers white, rather abundant. Tubers quite smooth, elongated or oblong, stem and seed end rather blunt. Eyes shallow, but sharp and strongly marked; skin thin but tough. Flesh creamy white sometimes streaked with red, solid and brittle, rarely hollow. Our strain of this grand "old timer" is exceptionally good. Potato prices on application.



1339—Netted Gem. A splendid main crop potato that gives good results in dry sections. Tubers are elongated, medium sized with russet netted skin; flesh white; eyes are flush with surface; good keeper and produces a fine yield. This is the variety grown extensively by irrigation in Washington and Idaho for baking. Our stock is extra choice of the most improved type. Potato prices on application.

WE PAY POSTAGE ON ALL VEGETABLE SEEDS EXCEPTING PEAS, BEANS, CORN AND ONION SETS

1336—Beauty of Hebron (Not Certified). Slightly flesh colored skin, with pure white flesh. Very productive and of the finest quality; a first-class variety. A popular potato with the home gardener. Potato prices on application.

1337—Pride of Multnomah. Tubers are uniform in size, of the ideal elongated type with smooth, thin white skin; eyes shallow; flesh snow white, of finest table quality; flowers white; vines medium large of bushy growth; withstands drought; and is blight and disease resistant to a remarkable degree. Potato prices on application.

1338—American Wonder. (not certified) One of the earliest and best main crop varieties. Strong grower of branching habit and great producer. Tubers white, large and uniform in size; elongated and slightly compressed. Blooms white; foliage rich dark green. Our stock is of exceptional quality, selected to our standard. Potato prices on application.

1340—Burbank. A standard commercial variety. Late and very productive. Skin nearly smooth. Eyes rather shallow. Tubers long and slightly flattened. Under proper selection it thrives equally as well now as at any time since its introduction. We offer a select true heavy yielding strain. Rogued to our standard of type and free from disease. Potato Prices on application.

Prices on Potatoes are very uncertain and they may have to be advanced as the season approaches, and are subject to change without notice.



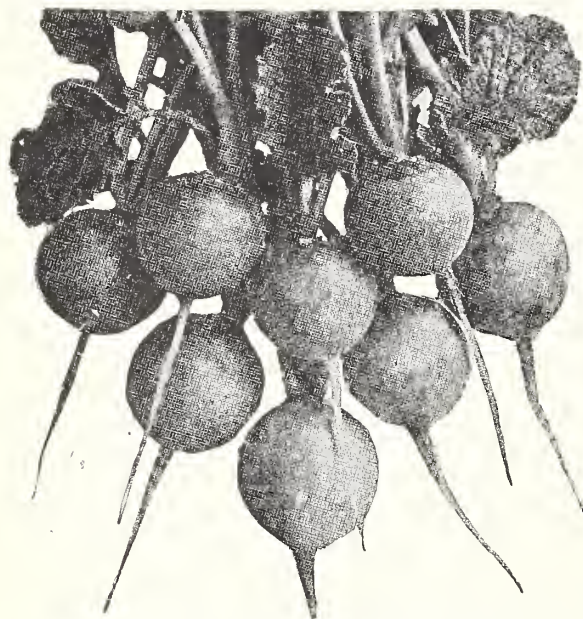
"EARLIEST OF ALL"

1334—Can Be Had Ready for Cooking 9 Weeks From Planting. Mature in 12 Weeks. Originally a selection from Early Eureka, showing a marked difference in habit and greatly increased yield which years of careful re-selection have firmly fixed and improved. "Earliest of All" is a shallow eyed, white skinned variety of vigorous growth and does not make a second growth. The tubers are smoother and have fewer eyes than other varieties of this type. The white blossoms also easily distinguish it from Irish Cobbler, which has a purple bloom. Not affected by summer drouths owing to its quick growth and early maturity. A good keeper. The earliest of all early potatoes. An ideal forcing potato for market gardeners. Potato prices quoted on application.

NO WARRANTY

NOTE—While we exercise the greatest care to have all Seeds pure and reliable, and all Bulbs, Plants and Nursery Stock true to name, we do not give any warranty, express or implied, and will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms and conditions, they must be returned at once, and the money that has been paid for the same will be refunded.—POOLE'S SEED & IMPLEMENT CO.

RADISHES



CULTURE—Sow as soon as the ground is dry in the Spring, in rows 8 to 12 inches apart, every week or ten days for a succession, up to the middle of June, after which they are but little used, unless a cool northern spot can be had, where the ground is shaded during part of the day. They should be sown in light, rich soil, as a crisp Radish cannot be produced in heavy soils. Sow also in early fall for late crops and winter use. Sow 8 to 10 lbs. to the acre. Radishes should be eaten quite small; it is a mistake to let them grow too long and too large. This applies particularly to the French Breakfast and small turnip-shaped sorts. In home garden sow early varieties two-thirds oz. to 100 ft. of drill every two weeks for a succession of crisp, solid radishes.

1355—Early Scarlet Turnip (White Tipped). An exceptionally fine strain so largely grown by market gardeners. Its color is of the deepest scarlet with a prominent white tip; superb flavor. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., 90c.

1356—Early Scarlet Turnip. One of the standard sorts for general sowing. Roots are turnip shaped, dark red and of fine quality. Pkt., 5c; oz., 10c; $\frac{1}{2}$ -lb., 30c lb., 90c.

1357—Deep Scarlet Forcing. Popular everywhere, either for forcing or outside sowing. Its brilliant color, uniform shapes, and crisp, white flesh make it a favorite with all. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 35c; lb., \$1.25.

1358—Crimson Giant, or Giant Butter. Desirable for forcing or outdoor planting. Will produce Radishes nearly twice the size of other red forcing varieties and, in spite of their large size, will retain their crispness and solidity. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 35c; lb., \$1.25.

1359—Round Scarlet China. Fine for winter or summer. Matures in 6 to 8 weeks. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 35c; lb., \$1.25.

1360—French Breakfast. This well known radish is olive shaped, bright scarlet with the exception of the white tip. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., 90c.

1361—Early Long Scarlet, Short Top. This bright

scarlet, small topped sort is uniformly straight, smooth, brittle and crisp, and is a standard and excellent sort for private gardens or market use. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., 90c.

1362—Chartier. Roots are red with a white tip, slender, and remain solid and crisp until of large size. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 35c; lb., \$1.25.

1363—China Rose Winter. One of the best Fall and Winter varieties; a favorite with market gardeners; bright rose color; flesh white, firm and of superior quality. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 35c; lb., \$1.25.

1364—Lady Finger, or White Vienna. Of rapid growth and beautiful shape. Skin and flesh snow-white; very juicy, firm, crisp and tender; the finest of Long White Radishes. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1365—Icicle. One of the earliest and purest of all long, white varieties. For crispness and tenderness it is unsurpassed. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1366—White Strasburg. One of the best large Summer sorts. It covers a long season, as it is good when quite small. The roots are long, very white, crisp and tender. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 35c; lb., \$1.25.

1367—Black Spanish Long. Standard Winter sort; has good flavor and keeps well. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 35c; lb., \$1.25.

1368—Black Spanish Round. Same as long, except shape. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 35c; lb., \$1.25.

1369—Chinese White Winter, or Celestial (California Mammoth White Winter.) The well-known and popular winter variety. The half stump-roots are clear white and the flesh is the most crystalline of all winter varieties. Roots may be used all winter long as they keep in fine condition. Makes a most palatable dish when cooked and served like turnips. Pkt., 5c; oz., 20c; $\frac{1}{4}$ -lb., 60c; lb., \$1.75.



RHUBARB OR PIE PLANT

1370—Victoria or Mammoth. Very large; finest cooking variety. Pkt., 5c; oz., 35c; $\frac{1}{4}$ -lb., \$1.00; lb., \$3.00.

SALSIFY Oyster Plant

The roots are long and tapering; when cooked has a flavor like oysters. If more people knew how many fine dishes are made out of Salsify Roots it would be much more extensively planted. Same culture as carrots. Roots good all Winter.

1375—Mammoth Sandwich Island. The best variety of Salsify, being very smooth, of fine quality, pure white and extra large size. Pkt., 5c; oz., 25c; $\frac{1}{4}$ -lb., 75c; lb., \$2.50.

SPINACH



An easily grown plant, the seed of which may be planted in the fall to secure good Spinach early in the spring or even throughout the winter. The better and richer the soil, the larger and more tender the leaves will be. As a field-crop for the market-garden use 8 pounds of seed per acre; for the home-garden use one ounce for 100 feet of row. For Fall use, sow in August, and for Winter crop in September. Cover that which is left out over Winter with straw or leaves after the weather becomes quite cold. Keep clear of weeds.

1380—King of Denmark. Undoubtedly the most valuable of new introductions of early sorts, remaining in good condition from one to two weeks after other varieties have gone to seed. Plants are of rapid growth, leaves thick and stand well after cutting. Of good quality. Sure to win favor with both home and market gardener. Pkt., 10c; oz., 15c; $\frac{1}{4}$ -lb., 35c; lb., \$1.00.

1381—Long-Standing (Round Thick-Leaved). Dark Green; leaves large and thick; very long-standing. Best for Spring growing. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 20c; lb., 60c.

1382—Victoria. Extra-dark, black-green color. Two or three weeks later than the ordinary "Long-standing." A fine variety for Spring sowing. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 20c; lb., 60c.

1383—Round Viroflay (Thick-leaved) Has very large thick, dark green leaves; the favorite market-gardener's sort for Fall or Spring sowing. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 20c; lb., 75c.

1384—Prickly, or Winter. Vigorous and hardy; recommended for Fall sowing. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 20c; lb., 60c.

1385—New Zealand Summer. Not a Spinach, but used as such. Grows 1 $\frac{1}{2}$ feet high and is very prolific; does well in hot summer weather; valuable for hot climates. Soak the seed in hot water before using. Sow the seed of New Zealand in hills 2 feet apart each way, three or four seeds in a hill. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 25c; lb., 75c.

1386—Savoy Leaved—Bloomsdale—Very early; of upright growth; leaves pointed. Plant in the Autumn for Spring use; grows quickly. Pkt., 10c; $\frac{1}{4}$ -lb., 25c; lb., 75c.

MUSTARD

The leaves of mustard make excellent greens of sharp pungent flavor, and are cooked the same as spinach or beet leaves.

1280—Southern Giant Curled. Large variety, forming a great mass of beautiful leaves, which are ruffled and finely curled on the edges; hardy, vigorous, highly recommended. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1281—White English. Light green variety; tender leaves; seed light yellow. Pkt., 5c; oz., 10c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1282—Ford Hook Fancy. The dark green leaves of this variety are more curled on the edges than any other sort, making most attractive greens. May be cooked and served like spinach. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

SUNFLOWER

Sunflower, Mammoth Russian. The largest and most productive variety. Grown extensively for silage for cattle and is proving of immense value. The seed is a valuable poultry food, a great egg producer. It is usually drilled in 36-inch rows with the hills 4 inches apart in the row. In sections where the season is short it should be planted as soon as the soil is in good con-

dition in the spring. For silage it should be cut when 25 to 30 per cent of the plants are in bloom. In food value it is equal to corn silage and the yield 3 or 4 times as great. It has been demonstrated in many parts of the country that no other known forage plant will produce as great a tonnage of high grade food for livestock. **Lb., 15c.** Write for quantity prices.

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SQUASH

1395—Early White Bush Scallop. The best summer sort for the market; very productive and of good size. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 40c; lb., \$1.25.

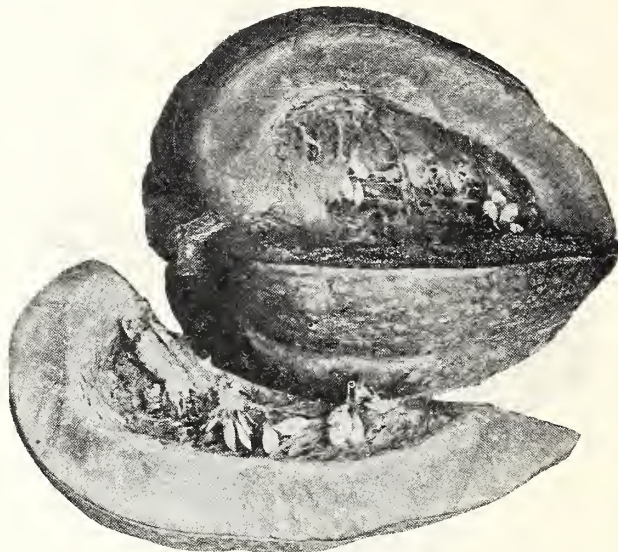
1396—Early Yellow Bush Scallop. An early; flat, scallop-shaped variety; color, yellow; flesh, pale yellow and well flavored; very productive. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 40c; lb., \$1.25.

1397—Mammoth Summer Crookneck. Early, prolific, flesh tender and of good quality. Twice as large as the ordinary Crookneck and several days earlier. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 45c; lb., \$1.50.

1398—Banana Squash. Grows from one to two feet in length. Flesh firm and solid, of beautiful orange-yellow, and excellent quality. Rind or shell smooth and grayish-green color. Resists heat of the sun better than the Hubbard and because of its excellent flavor and splendid keeping qualities, remaining in good condition from one season to another, is already superseding that variety in many localities. Pkt., 10c; oz., 25c; $\frac{1}{4}$ -lb., 80c; lb., \$2.50.

1399—Truc Hubbard. The best seller and most popular variety on our list. Rind dark green, warty and very hard. Flesh light orange, very dry, sweet and rich flavored. Has no superior. Keeps perfectly through the winter. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 40c; lb., \$1.25.

1400—Golden Hubbard. The same in size, shape and quality as the well-known Hubbard Squash, except that it is a bright red or golden color, and somewhat earlier. It is also a long keeper. One of the very best fall and winter sorts yet introduced. Maturing before the frosts; is vigorous and wonderfully productive. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 45c; lb., \$1.50.



CULTURE—The plants are very tender and sensitive to cold, and planting must be delayed until settled warm weather. The general principles of culture are the same as those given for cucumbers and melons, but squash is less particular as to soil. The Summer varieties should be planted four to six feet apart each way and the winter sorts eight to ten feet. Three plants are sufficient to a hill.

1402—Mammoth Chili. The largest of all Squashes, growing to an enormous size, often weighing over 200 pounds, while its rich, fine flavored flesh insures its value for all purposes. Its size makes it valuable for stock feeding. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 45c; lb., \$1.50.

1403—Boston Marrow. Skin yellowish, very thin; flesh dry and fine grained; of unsurpassed flavor. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 40c; lb., \$1.25.

1404—English Vegetable Marrow. Oblong, dull, yellow skin, very prolific and of finest table quality. Pkt., 5c; oz., 20c; $\frac{1}{4}$ -lb., 50c; lb., \$1.75.

1406—Essex Hybrid. A good fall and winter sort; fine-grained; rich flavor; very prolific. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 45c; lb., \$1.50.

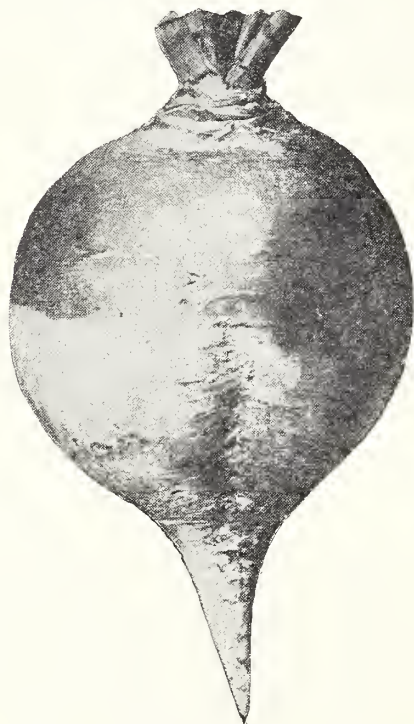
RUTABAGA

Swede Turnip

Rutabaga, or Swede. These are grown usually for stock-feeding and make an excellent and valuable crop. Treatment same as for winter Turnips, but require a longer season to grow. The seed should be planted early in July in rows at least $2\frac{1}{2}$ feet apart and the plants thinned to 8 to 12 inches apart.

1430—Improved American Purple Top. The leading standard variety, being very distinct in type, attaining a wonderfully large size; immense yielder. The flesh is very firm, superior in every way, valuable alike for all purposes. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 35c; lb., \$1.00.

1431—White Sweet Russian. This variety is most excellent, either for table or stock; it grows to a very large size; flesh white; solid, of a firm texture, sweet and rich; an excellent keeper. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 35c; lb., \$1.00.



TURNIPS



CULTURE—Turnips grown quickly so that they are tender, make a delicious vegetable. The home-gardener can give them easily that extra care needed to bring them to perfection. The requirements are for a rapid, uninterrupted growth, and for moist, well-worked soil. In Alaska Turnips reach perfection, and all over our coast they are excellent. Sow in early spring and again in August. This latter gives roots for winter. Put the rows 12 to 18 inches apart, and thin to 5 to 8 inches. Do not transplant except when very young and that should not be necessary. One ounce of seed sows 250 feet of row.

1432—Early Purple Top Milan. This variety is ready for the table sooner after planting than any other yet introduced. Top small, erect, strap-leaved; bulb a deep purple above, white underneath; flesh white, firm and delicate. Pkt., 5c; oz., 20c; $\frac{1}{4}$ -lb., 40c; lb., \$1.25.

1433—Early White Milan. Same as Purple Top Milan, but pure white, sweet and tender; best early market variety. Pkt., 5c; oz., 20c; $\frac{1}{4}$ -lb., 40c; lb., \$1.25.

1434—Early White Flat Dutch. One of the very best and most universally grown. Small, erect top, round, flat; flesh, white, firm, but very tender and sweet. Of quick growth, it is soon ready for the table and keeps well. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1436—Early Snowball. Early round turnip, maturing in seven weeks, is of perfect form, snowy whiteness, crisp, solid and of fine flavor. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 35c; lb., \$1.00.

USE A PLANET JR. SEEDER AND CULTIVATOR. SAVES THE BACK.

1442—Golden Ball. Undoubtedly one of the most delicate and sweetest yellow-fleshed turnips yet introduced. Not of large size, but firm, hard and most excellent flavor. Keeps well and is superior as a table variety. It is extensively used by market gardeners. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

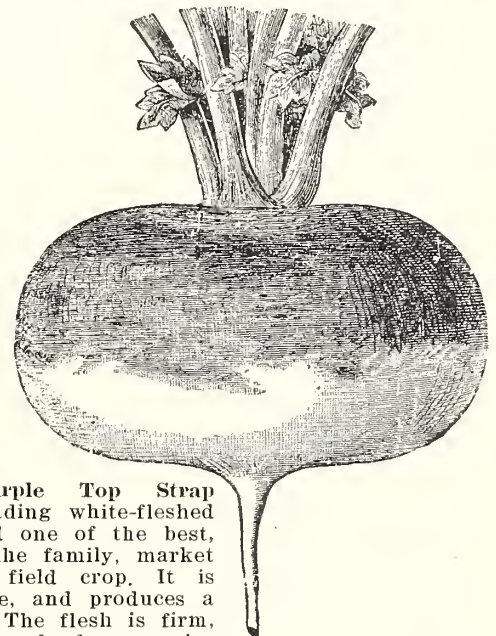
1437—White Egg. Is perfectly smooth, of a pure, clear white, growing half out of the ground, and at times to the size of a rutabaga, being a very choice kind for table use; of excellent flavor, sweet and mild. Pulls clean from the ground; thin, snow-white skin. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1438—Purple Top White Globe. A large, globe-shaped variety; purple above the ground; it is handsome and of excellent quality, and recommended both for the ily garden and field crop. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1439—Pomeranian White Globe. One of the most productive kinds and in good, rich soil, roots will frequently grow to 12 pounds in weight. It is of perfect globe shape; skin white and smooth; leaves dark green and of strong growth. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., \$1.00.

1440—Cowlhorn. Sometimes called Long White. Slightly crooked. Pure white except a little shade of green at the top. Grows half out of the ground and is of very rapid growth. It is delicate and well flavored. Has proved itself one of the best stock turnips ever introduced in Wash., as it is an immense yielder. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., 90c.

1441—Yellow Aberdeen. Round, medium size; light yellow. Produces a large crop; is hardy and keeps well; flesh very firm but tender and sweet. A great favorite with the dairymen. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 30c; lb., 90c.



1435—Purple Top Strap Leaf. A leading white-fleshed variety, and one of the best, either for the family, market garden or field crop. It is medium size, and produces a large crop. The flesh is firm, but tender, and of a superior rich buttery flavor. A good keeper. Pkt., 5c; oz., 15c; $\frac{1}{4}$ -lb., 35c; lb., \$1.00.

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TOMATOES

CULTURE—Sow in a hotbed in early spring, or the seed may be sown in shallow boxes and placed in a window when one does not wish to have the trouble of making a hotbed. Transplant to the open ground when all danger of frost is past, setting the plants 3 to 4 feet apart each way. Fruit may be used several weeks earlier by sowing seed quite early and transplanting to small pots. Tomatoes that have not ripened at the end of the season may be taken from the vines and placed in empty cold frames, or wrapped in tissue paper, and carefully packed in flat boxes—where a large proportion of them will ripen from time to time, frequently until Christmas.

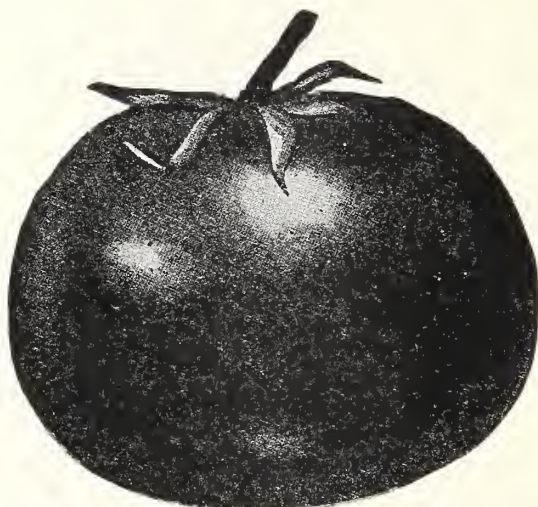
1415—Spark's Earliana. The earliest tall variety, forming ripe fruit much earlier than any other variety. The fruit is large, smooth, of a bright scarlet color and of fine quality. Very valuable for early market use. Pkt., 5c; oz., 40c; $\frac{1}{4}$ -lb., \$1.25.

1416—Bonnie Best. An early scarlet fruited Tomato. It is smooth, very even in size, very solid and also very prolific. Price Pkt., 5c; oz., 40c; $\frac{1}{4}$ -lb., \$1.25.

1417—Chalk's Early Jewel. Large, bright red, smooth, round fruits, very deep and colored evenly up to the stem; very solid, almost seedless and of the finest flavor. Vines are vigorous, not subject to blight, and yield fully equal to, or better than, Earliana. Pkt., 5c; oz., 40c; $\frac{1}{4}$ -lb., \$1.25.

1418—John Baer. This variety is the result of fifteen generations of breeding; it produces perfect, solid, high crown, brilliant red tomatoes. They ripen ten days before Earliana, bearing 50 to 100 fruits per plant. The flavor is deliciously sweet. The plant will stand plenty of fertilizer without going to vine. Keeps well; is a good shipper; a prolific, continuous bearer, and has the unusual and remarkable feature of being easily peeled, the skin slipping readily from the rich, firm flesh. Resistant to wilt and other diseases. Pkt., 5c; oz., 50c; $\frac{1}{4}$ -lb., \$1.50.

1419—Stone. A large tomato of good quality; round or apple shaped, and very uniform, deep red in color, and exceedingly heavy. Pkt., 5c; oz., 40c; $\frac{1}{4}$ -lb., \$1.25.



1420—Dwarf Champion or Tree Tomato. Vines erect and vigorous; fruit of medium size, round, smooth, of excellent quality, very fleshy; approaching purple in color. Pkt., 5c; oz., 40c; $\frac{1}{4}$ -lb., \$1.25.

1422—Ground Cherry, or Husk Tomato. Grows to great perfection under ordinary culture, yielding abundantly; very much prized for preserving; should be in every garden. Pkt., 10c; oz., 75c.

1423—Yellow Pear. A small pear-shaped tomato, borne in great profusion, vine literally covered with large clusters of fine, solid fruits; excellent for preserving, and for use in salads and cooking is superior, as flesh is not watery. Very hardy. Pkt., 10c; oz., 75c.

TOMATO PLANTS

Standard varieties for seasonable delivery—Fine, healthy transplanted and pot grown plants. Safely packed and shipped to any point in the Northwest. Write for prices on any amount.

HERBS

1500—Anisc. Seeds aromatic and carminative. Pkt., 5c; oz., 50c.

1501—Balm. For culinary purposes. Pkt., 10c; oz., 60c.

1502—Basil. For flavoring soups. Pkt., 5c; oz., 50c.

1503—Borage. Leaves used as a salad. Pkt., 5c; oz., 50c.

1504—Caraway. For sowing. Used in flavoring bread and liquors. Pkt., 5c; oz., 25c.

1505—Catnip. Has medicinal qualities. Pkt., 10c; oz., \$1.40.

1506—Coriander. Seeds aromatic. For sowing. Pkt., 5c; oz., 25c.

1215—Dill. For sowing. Seeds used for flavoring vinegar. Pkt., 5c; oz., 25c; $\frac{1}{4}$ -lb., 75c.

1507—Fennel, Sweet. Seeds aromatic; for flavoring. Pkt., 5c; oz., 30c.

1508—Horehound. Has medicinal qualities. Pkt., 10c; oz., 75c.

1509—Lavender. True. For oil and distilled water. Pkt., 10c; oz., 70c.

1510—Marjoram, Sweet. Is used in seasoning. Pkt., 10c; oz., 75c.

1511—Rosemary. Yields an aromatic oil and water. Pkt., 10c; oz., \$1.00.

1512—Rue Said to have medicinal qualities. Pkt., 10c; oz., \$1.00.

1513—Sage, Broad-Leaf. A culinary herb; also used in medicine. Pkt., 10c; oz., 75c.

1514—Savory, Summer. Is used as a culinary herb. Pkt., 10c; oz., 75c.

1516—Tansy. Generally used in bitters. Pkt., 10c.

1517—Thyme, French. Is used as a seasoning. Pkt., 10c; oz., \$1.25.

1518—Wormwood. Has medicinal qualities. Pkt., 10c; oz., 65c.

TOBACCO

Sow the seed thinly in beds, as early as they can be well prepared. Cultivate thoroughly, transplanting when six inches high to rows four feet apart each way.

1410—Connecticut Seed Leaf. Hardy, and the best adapted to cool localities, and for general use. Pkt., 10c; oz., 75c.

1411—Havana. Of fine texture and delicate flavor. Pkt., 10c; oz., 75c.

What To Plant	When To Plant	How To Plant It Seeds or Plants Per 25 ft. row	How Deep To plant it	How Far Apart To Plant It		When They Mature No. of Days	Quantity Per Acre
				Between Rows	Between Plants		
Asparagus	April	25 plants	4 in.	1 ft.	3 ft.	365	11 000 plants
Beans-bush	Apr. May, June	1 pkt.	1 in.	18 in.	$\frac{3}{4}$ in.	45—60	40 lbs.
Beans-pole	May, June	1 pkt. to 50 ft	1 in.	4 ft.	4 ft.	60—90	30 lbs.
Beans-lima pole	May	1 pkt. to 50 ft	1 in.	4 ft.	4 ft.	90—120	30 lbs.
Beans-lima bush	May-June	1 pkt.	1 in.	2 ft.	$\frac{3}{4}$ in.	90—120	40 lbs.
Beets-early	April	2 pkts.	1 in.	1 ft.	5 in.	40—60	10 lbs.
Beets-late	May-June	2 pkts.		1 ft.	5 in.	40—80	10 lbs.
Broccoli-early	First week Apr.	35 plants		2 ft.	1½ ft.	50—80	
Broccoli-late	May-June	35 plants		2 ft.	1½ ft.	60—90	
Brussels sprouts	May to June 15	35 plants		2 ft.	1½ ft.	100—150	
Cabbage-early	April	20 plants		2 ft.	1½ ft.	70—100	4000 plants
Cabbage-late	May 15-June 15	20 plants		2½ ft.	1½ ft.	120—160	5-oz. seed
Cauliflower	Apr. 15-June 1st	18 plants		2 ft.	1½ ft.	90—150	7000 plants
Carrots	Apr. May-June	2 pkts.	$\frac{1}{2}$ in.	1 ft.	3 in.	100—150	3 lbs.
Celery	March (Hotbed)	50 plants		20 in.	6 in.		30,000 plants
Corn-sweet	May-June	1 pkt.	2 in.	3 ft.	3 ft.	70—100	15 lbs.
Cucumbers	May-June	2 pkts.	1 in.	4 ft.	3 ft.	65—90	2 lbs.
Egg Plant	Apr. May-June	24 plants		2 ft.	2½ ft.		7000 plants
Endive	Apr. 1 to Sep. 15	2 pkts.	$\frac{1}{2}$ in.	1 ft.	8 in.	70—100	2 lbs.
Kale	Apr. 1 to Sep. 15	15 plants		2 ft.	18 in.	60—80	8 oz.
Kohlrabi	Apr. to July	1 pkt.	$\frac{1}{2}$ in.	16 in.	8 in.	60—80	2 lbs.
Lettuce (hotbed)	Feb. for transplanting in April						2 lbs.
Lettuce (open ground)	Apr. to Sept.	2 pkts.	$\frac{1}{2}$ in.	1 ft.	1 in.	60—100	
Leek	April	3 pkts.	1 in.	14 in.	3 in.	100—150	
Onion (seed)	April	3 pkts.	$\frac{1}{2}$ in.	1 ft.	4 in.	100—150	3 lbs.
Onion (sets)	March to June	$\frac{1}{2}$ lb.		1 ft.	3 in.	80—120	250 lbs.
Peas (early)	Apr.-May	1 pkt.	$\frac{1}{2}$ in.	2 ft.	1 in.	60—80	100 lbs.
Peas (late)	May-June	1 pkt.	$\frac{1}{2}$ in.	3 ft.	1 in.	75—100	75 lbs.
Peppers	March (hotbed)	15 plants					
Peppers	May			24 in.	18 in.		
Parsnips	April	1 pkt.	$\frac{3}{4}$ in.	24 in.	Drill		5 lbs.
Parsley	March to May	2 pkts.	$\frac{1}{2}$ in.	1 ft.	4 in.	100—125	
Pumpkin	April to June	1 pkt.	1 in.	6 ft.	6 ft.	100—125	3 lbs.
Potatoes		2½ lbs.		2 ft.	1 ft.	60—100	600 lbs.
Radishes	All year	2 pkts.	$\frac{1}{4}$ in.	10 in.	Drill	25—40	10 lbs.
Squash (summer)	May-June	2 pkts.	1 in.	4 ft.	3 ft.	60—80	3 lbs.
Squash (winter)	June	2 pkts.	1 in.	4 ft.	3 ft.	70—100	3 lbs.
Salsify	April	$\frac{1}{2}$ oz.	$\frac{1}{2}$ in.	16 ft.	3 in.	100—140	6 lbs.
Swiss Chard	Apr. May-June	2 pkts.	$\frac{1}{2}$ in.	1 ft.	8 in.	50—60	5 to 6 lbs.
Tomatoes	May	12 plants		4 ft.	3 ft.	80—100	1200 plants
Turnips (early)	Apr. May	2 pkts.	$\frac{1}{2}$ in.	1 ft.	4 in.	60—80	3 lbs.
Turnips (late)	June to Sep.	2 pkts.	$\frac{1}{2}$ in.	1 ft.	4 in.	60—90	3 lbs.

Reports come to us from many growers, often because of extraordinary successes but more frequently the failures are reported, and it is up to the seedsman to know the cause of such failures. Here are some of the causes.

SOIL

Not chemically or physi-
cally adapted to the re-
quirements of the crop.
Not properly prepared.
Too much or too little
moisture.

CLIMATE

Variety planted out of its
season.
Unseasonable weather.
Extremes of heat and cold.
Excessive rain or drouth.

CULTURE

Variety not adapted to
conditions.
Improper planting.
Improper cultivation.
Improper irrigation.
Improper fertilization.
Inattention to insects and
diseases.

SEED

Unwise selection of var-
iety.
Inattention to purity and
germination.
Indifference as to pedi-
gree and source.

FLOWER CULTURE

CULTURE—Cultural directions are printed on the back of nearly all packets. Flowers usually succeed best in a sandy loam, made rich with well-rotted manure, which should be made fine and thoroughly mixed with the soil. A soil thus prepared will remain moist and loose, so that flower seeds, which are generally small and delicate, will germinate and grow with vigor.

After the plants are up they require plenty of air and moisture, but they must not be too wet or they will "damp off." When large enough to transplant, put them in boxes or pots, giving them plenty of room, then when the ground is warm enough to put them outside, each plant will have a nice clump of roots. But if they are left inside and are close together, they

will be weak and will not thrive.

A common mistake with flower, as well as other seeds, is planting too deep. A good rule is to plant the same depth as the thickness of the seed, and always press the soil down firmly, as this helps the seed to secure a firm hold and also retains the moisture.

A hotbed or cold frame is very convenient to start seeds in, as the temperature and moisture can be so regulated as to make their germination and rapid growth more certain. Most seeds do well if sown in boxes in a sunny window in the house.

Plants are usually ready to be transplanted when they have made a growth of two inches.

INFORMATION THAT WILL AID IN SELECTION OF FLOWERS

Annuals bloom and ripen the first year and then they perish. Many annuals in warm climates, or when taken in, or protected during Winter, become perennial, with short lives.

Hardy Annuals, Biennials and Perennials can be sown in open ground early in the Spring if desired, and Hardy Biennials and Perennials do not require any protection in winter.

Perennials flower several years in succession.

Biennials do not generally flower the first year, and are in their perfection the second year.

Half-Hardy Annuals, Biennials and Perennials should not be sown in open ground until settled warm weather,

though they can be sown in the house, if desired, early, and afterwards transplanted. The two latter need to be protected in Winter, or carried over until Spring in cold frames or greenhouses.

Flower seeds that are easy to grow under the proper conditions of heat and moisture will often fail when these conditions cannot be controlled.

We use the following abbreviations: "h" for hardy, that it—the ability to withstand frost without injury; "hh" for half-hardy; "t" tender, the least frost will kill it; "A" for annual, or lasting for one year only; "B" for biennial, or two-year plants—these flower 6 to 10 months after sowing; "P" for perennial; "hA" would be hardy annual, etc.

CLASSIFICATION OF FLOWERS

This will enable you to tell at a glance what flowers are suitable for any position.

Annual Bedding Plants or Tall Border Plants 1 to 2 feet

Agcratum, Tall—blue, white or mixed
Asters—various colors
Balsam—various colors
Brachycome—blue, white, rose
Browallia—blue and white
Calandula—mixed
Candytuft—various colors
Celosia—crimson
Centaurea—yellow, rose
Chrysanthemum—yellow, white, gold
Clarkia—pink, scarlet
Eschscholtzia—crimson, white, yellow
Four O'clock—various colors
Gaillardia—orange, scarlet
Godetia—variegated rose and white
Gypsophila (for bouquets)—white
Linum (scarlet flax)—scarlet
Marigold—yellow, red, brown, and variegated
Mignonette—white, yellow, red
Nasturtium, dwarf—various colors
Nigelia (Love in a mist) mixed colors
Petunia—various colors
Poppy—various colors
Phlox—various colors
Scabiosa—white, lilac, carmine and maroon
Schizanthus—various colors
Salvia—scarlet
Stock (10 weeks)—all colors
Zinnia—various colors

Everlasting Flowers

Acroclinium—all colors
Helichrysum—various shades
Statice—white, blue and yellow

Tall Growing Plants for Grouping—Annual, From 2½ feet up

Amaranthus—scarlet
Calliopsis—yellow, brown, maroon
Castor Bean—white, red, pink
Cosmos—white, red, pink
Euphorbia—various colors
Kochia—various colors
Larkspur—various colors
Nicotiana—white
Rudbeckia—yellow

Salpiglossis—various colors
Scabiosa Grandiflora—all colors
Sunflower—yellow

Low Edging Plants

Ageratum Dwarf blue, white or mixed
Alyssum—white
Calliopsis, Tiger Star—reddish brown
Candytuft—various colors
Celosia, Dwarf—various colors
Centaurea, Dusty Miller—various colors
Dianthus—various colors
Lobelia Compacta—blue
Mignonette—white, yellow, red
Pansy—all colors
Portulaca yellow, pink, white, scarlet
Verbena—various colors

Low Edging Plants—Perennial, 6 to 12 Inches high

Alyssum Saxatile—yellow
Anemone—various colors
Pinks—various colors
Daisy, English—various colors
Forget-me-not—blue
Poppy, Iceland—white, orange, yellow
Primula—various colors
Pyrethrum—various colors
Viola—yellow, white and blue

Bedding Plants—Perennial 1 to 2 feet high

Agrostemma—pink
Aster—various colors
Begonia—various colors
Calceolaria various shades and colors
Candytuft—all colors
Carnation—various colors
Cineraria—various colors
Coleus—yellow, violet, rose
Columbine—white
Daisy (Shasta)—yellow, orange, scarlet
Geum—scarlet
Linum—various colors
Lychnis—scarlet
Pentstemon—various colors
Salvia—scarlet
Statice—white, blue, yellow
Stocks (perpetual)—all colors
Sweet William—various colors

Tritoma—orange, red
Vinca—white, rose
Wallflower—various colors

Climbing Vines—Annual

Balloon Vine—white
Scarlet Runner Bean—scarlet
Cardinal Climber—red
Cobea Scandens—red
Cypress Vine—white
Gourds—white
Moonflower—white
Morning Glory—various colors
Nasturtium, Tall—all colors
Sweet Peas—all colors

Tall Growing Shrub Plants—Perennial For Grouping from 2½ feet up

Anchusa—blue
Aster—various colors
Canna—various colors
Canterbury Bells—various colors
Chrysanthemum—various colors
Dahlia—all colors
Delphinium—various colors
Digitalis—scarlet, white, pink
Geranium—various colors
Gladiolus—various colors
Hollyhock—various colors
Lantana—red, white, yellow
Lobelia Cardinals—scarlet
Lupin—shades of blue
Poppy, Oriental—various colors
Phlox, Perennial—various colors
Snapdragon, Tall—various colors

Climbing Vines—Perennial

Clematis—white, lavender, red
Kudzu Vine—violet

For Rockeries, Hanging Baskets or Window Boxes

Asparagus Fern—blue
Forget-me-not—blue
Ice Plant—scarlet
Lobelia—blue
Lobelia Trailing—blue
Mimulus—yellow
Nasturtium—various colors
Petunia—various colors
Portulaca—buff, orange and white
Thunbergia—various colors

POOLE'S SUPERB SPENCER SWEET PEAS

EARLY FLOWERING, LONG SEASON SPENCER SWEET-PEAS

Australia is responsible for the starting of this type as the introduction of the variety Yarrowa caused the American hybridizers to endeavor to add all the known colors in the late flowering strain and in this they have succeeded far beyond their fondest expectations. For greenhouse culture these Early Flowering Spencers have become exceedingly popular and many acres of glass are devoted to growing them, especially in the middle west and east. While the seed may be sown very early, yet in some localities it is better to sow in the fall of the year.

Six weeks earlier than the Standard Spencers, these new early-flowering varieties begin to bloom 106 days from planting in the open ground and flower through a long season—about four months.

5001—Early Flowering—All white. Per pkt., 10c; oz., 50c.

5002—Early Flowering—Amethyst, color purple. Pkt., 10c; oz., 50c.

5003—Early Aviator. Large; crimson. Pkt., 10c; oz., 50c.

5004—Early Flowering Cream, as named. Pkt., 10c; oz., 50c.

5004A—Early Meadow Lark, deep rich cream, extra waved. Pkt. 10c; oz. 50c.

5005—Early Flowering Enchantress. Rose Pink. Pkt., 10c; oz., 50c.

5006—Early Flowering Fair Maid. Large blush pink. Pkt., 10c; oz., 50c.

5007—Early Flambeau. A large orange cerise. A wonderful advance in this group. It is a pure orange slightly tinged with cerise, very large and free flowering and will not burn. Pkt., 10c; oz., 50c.

5008—Early Flowering Glitters Standard Fiery Orange. Wings deep orange. Pkt., 10c; oz., 50c.

5009—Early Flowering Hercules. Mammoth rosy pink. Pkt., 10c; oz. 50c.

5010—Lavender King. Lavender. Pkt., 10c; oz., 50c.

5011—Early Morning Star. Deep orange-scarlet or flame-color. Pkt., 10c; oz., 50c.

5012—Early New Blue. We have worked for years to get a good free flowering early Spencer in a deep blue and we now offer Early New Blue as being the best deep blue in this group. Of robust habit, good stems, carrying fours of large size. Pkt., 15c; oz., 60c.

5013—Early Nightingale. This is a good florist's variety; large; lavender. Pkt., 10c; oz., 50c.

HUMOGERM INOCULATION

For Sweet Peas makes a better root growth, insuring stronger plants, finer blossoms, and prolongs the blooming period. See page 48.



5014—Early Rose Dore. A beautiful rose pink suffused orange; early, very robust habit. It is soft rose suffused salmon orange, borne on long stems carrying three and often four well placed flowers. Pkt., 15c; oz., 60c.

5015—Snowstorm Improved. Pure white. Pkt., 10c; oz., 50c.

5016—Early Spring Maid. The color is light flesh pink, about like Mrs. Hugh Dickson. Pkt., 10c; oz., 50c.

5017—Early Starlight. A clear lavender blue; synonymous in color with the late Hawlmark Lavender. "The silvery blue of a night in the Silent North." Very early, a strong grower. The flowers are nicely placed on long stout stems. Pkt., 15c; oz., 60c.

5018—Yarrowa. Beautiful rose shade, with light pink standard. Pkt., 10c; oz., 50c.

5019—Poole's Early-Flowering, Long-Season's Spencer Mixture. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.00.

STANDARD SPENCER VARIETIES AND NOVELTIES

Continued on Next Page

POOLE'S SUPERB SPENCER SWEET PEAS

LATE FLOWERING VARIETIES AND NOVELTIES

CULTURE—First and most important, plant as early in the spring as the conditions will permit. Seeds should be sown at the rate of one ounce to 15 feet. Make a trench about 3 or 4 inches deep, planting seeds in the bottom about 2 inches deep, pressing the soil firmly. After the plants are well up, thin to 4 or 5 inches apart and draw the soil around them until the trench is filled above the level. This gives a depth to the roots, preserving the moisture. Keep the ground well worked and water if needed, an occasional soaking down being better than a daily sprinkling. Keep the flowers cut close and a pruning of the tips of the vines will also aid in prolonging the season of bloom and insuring better flowers.

FALL GROWING OF SWEET PEAS

On well drained soils fall planting of Sweet Peas brings greater satisfaction to the grower by producing larger blossoms on longer stems and through a longer season starting two or more weeks earlier.

In early October plant in trenches 8 to 10 inches deep, covering 2 inches putting on more earth as peas grow.

NOVELTIES

5033—Heavenly Blue Novelty. Late flowering. A fine new blue, of a most beautiful soft tone of Delphinium blue.

It is a pure blue self that does not show a trace of violet.

The flowers are of immense size with fours invariably well placed on long stiff stems.

This novelty is a very marked improvement over Mrs. Tom Jones and we believe it will be hard to surpass among late flowering blue Sweet Peas for many years to come. Pkt., 25c; oz., \$1.50.

5035—Doreen Novelty. Doreen is a huge, bright carmine Sweet Pea. It is much larger and brighter than all other carmine varieties we have tried. The color is bright and outstanding and we anticipate Doreen will be popular with exhibitors on account of its size. The plant is a most vigorous grower and bears a profusion of four blossom sprays. Pkt., 15c; oz., 50c.

5036—Defiance Novelty. A fine large orange scarlet absolutely burnless. Of vigorous robust habit. A great improvement over Royal Scott. Pkt., 15c; oz., 75c.

5037—Campfire Novelty. In Campfire we have the brightest scarlet sun-proof Sweet Pea ever offered. It is the last word in vivid color and stands out beside all other varieties in this class. The flowers will stand the hottest sunshine, in fact the brighter the sun the better the color. The flowers, while not huge are of fine size and borne in profusion on plants of great vigor. This variety is highly recommended for garden decoration and cutflower use and will always be in demand. Pkt., 15c; oz., 50c.

WHITE

5038—King White. The newest and most magnificent white; of perfect Spencer type; the immense petals gracefully frilled—are a pure white of wonderful substance. Pkt., 10c; oz., 35c.

5039—Constance Hinton. Decidedly the best black-seeded, white flowered variety. Flowers are of large size, and come at times with a decided blush tinge. Pkt., 10c; oz., 35c.

5040—White Spencer. A pure white flower of enormous size, beautiful crinkled and fluted, of splendid substance. Pkt. 10c; oz. 35c.

PINK

5041—Elfrida Pearson. The color is a lovely pink; buds and flowers tinted with salmon-pink. Pkt., 10c; oz., 35c.

5042—Hebe. One of the latest. Giant clear rose pink of perfect form. Pkt., 15c; oz., 35c.

5043—Countess Spencer. Pink. Improved Strain. Flowers extremely large, beautiful expanded, crumpled and waved. Color soft shell pink, deeper at the outer edges. Pkt., 10c; oz., 35c.

5044—Florence Morse-Spencer. Deep blush pink. The flowers are extremely large, of the finest open wavy type; they are borne upon strong, stiff stems, four flowers to stem. Pkt., 10c; oz., 35c.

5045—Hawlmarm Pink. This most beautiful Sweet Pea is unsurpassed for either exhibition or general cutting purposes. The color is a most beautiful shade of rich rose-pink, deeply flushed and shaded with salmon. The wings are bright rose-pink, whereas the standard is somewhat lighter in color and slightly toned down with salmon. Large well waved blooms, usually borne in fours. Pkt., 10c; oz., 35c.

5047—Margaret Atlee. Rich, glowing pink on cream ground. Pkt., 10c; oz., 35c.

5048—Mrs. Hugh Dickson. Buff apricot ground color primrose. Pkt., 10c; oz., 35c.



ROSE

5049—Decorator (Burpee's). The color is rich rose overlaid with terra-cotta, intensifying to deep bright orange at base of wings. Pkt., 10c; oz., 35c.

5050—Appleblossom Spencer. Rose. A truly giant flower; color standard rose with deeper veining, wings light carmine, ground color primrose. Pkt., 10c; oz., 35c.

WE PAY POSTAGE ON ALL FLOWER SEED

LATE FLOWERING SPENCER SWEET PEAS—Continued

RED

5045—The President Harding. Greatest Sweet Pea of the century. Peach-red or salmon-cerise, suffused orange. Pkt., 10c; oz., 50c.

5051—Royal Scott. A magnificent new red that does not burn. The color is glowing orange scarlet. Flowers large and handsome. Pkt., 10c; oz., 35c.

5052—King Edward Spencer. Bright crimson scarlet, largest size, wavy standard; drooping wings, very long stems; one of the finest bright reds. Pkt., 10c; oz., 35c.

5053—Fiery Cross, bright red orange cerise. Pkt., 10c; oz., 35c.

5054—Vermillion Brilliant. Pure scarlet; one of the best of the latest novelties. Pkt., 10c; oz., 35c.

LAVENDER AND MAUVE

5055—Asta Ohn. Lavender, suffused with mauve; of perfect form, largest size 4 blossoms on long, strong stems; very vigorous. Pkt., 10c; oz., 35c.

5056—Florence Nightingale. Immense, bold erect flowers of soft, rich lavender with very delicate suffusion of rose; a beautiful, self-colored flower, frilled and waved. Bear four blooms on extra long stems. Pkt., 10c; oz., 35c.

5057—Masterpiece. Large wavy lavender-tinted mauve. Pkt., 10c; oz., 35c.

ORANGE

5058—Helen Lewis. A giant flower of perfect form; standard rich crimson orange, wings orange rose; open form, full, wavy. Pkt., 10c; oz., 35c.

5058A—Guinea Gold, bright orange on gold ground. Pkt., 10c; oz., 35c.

5059—Illuminator—A brilliant orange-salmon ground, illuminated with bright cerise pink; a rare and wonderful color combination of great beauty. First class certificate. Pkt., 10c; oz., 35c.

ABRONIA (Sand Verbena) hA

5070—You see this growing in sand along the beaches. Umbellata. Rosy lilac. Pkt., 10c.

ACROLINIUM (Everlasting)

5071—hHA. Grows about 15 inches high, bearing white or rosy pink flowers, when cut in bud state, can be dried and used for winter bouquets. Sow seeds early in sheltered location and transplant to permanent bed. Double Mixed. Pkt., 10c; ¼-oz., 20c; oz., 50c.

AGERATUM hA

One of the best summer blooming plants grown from seed. They are rapid growers, early and constant bloomers. During the hot dry summer months their bright flowers are produced in the greatest profusion. Set the dwarf sorts 10 inches apart and they soon make a mass of charming color.

5074—Mexicanum Coeruleum. 18 in. Beautiful soft lavender-blue, of free branching habit. Pkt., 10c.

5075—Album. White. Pkt., 10c.

5076—Mex. Mixed. Pkt., 10c.

5077—Nanum, Blue Perfection. 9 in. The darkest Ageratum grown from seed. Pkt., 10c.

5078—Imperial Dwarf Blue. 6 in. A charming variety of fine, compact growth, covered with heads of feathery flowers of a deep lavender color. Pkt., 10c.

5060—Tangerine. This is the last word in orange color sweet peas. Deep orange, almost approaching the color of a tangerine orange. Flowers of great size, beautifully waved and well placed. Pkt., 15c; oz., 35c.

CREAM OR PRIMROSE

5061—Primrose Spencer. A pronounced primrose or creamy white; excellent flower. Pkt., 10c; oz., 35c.

5062—Dobbies Cream. Large deep cream, perfect form. Pkt., 10c; oz., 35c.

BLUE AND MAROON

5063—Wedgewood. The best blue Spencer is a unique shade of lovely light blue. Pkt., 10c; oz., 35c.

5064—Warrior. Color rich maroon, flushed with bronze. The flowers are of great size, perfectly formed and placed. Pkt., 10c; oz., 35c.

5065—Splendor. One of the newest of sweet peas. The color is a rich mahogany-maroon, of giant size. Pkt., 10c; oz., 35c.

PURPLE—LILAC—HELIOTROPE

5066—Royal Purple. The color is a rich, warm, rosy purple, the younger flowers having a slightly softer color tone. Pkt., 10c; oz., 35c.

5068—Senator Spencer. Claret and chocolate stripe on light ground, large and most distinct, much admired; a profuse bloomer. Pkt., 10c; oz., 35c.

5069—Poole's Superb Mixture. (True Spencers Only). A splendid mixture, carefully proportioned and blended to produce pleasing and harmonious combinations of color. These are not seedlings, but carefully selected named varieties that retain all their purity and brilliance of color. oz., 25c; ¼-lb., 65c; lb., \$2.00.

For Perennial or Everlasting Sweet Peas see Lathyrus latifolius page 36.

AGROSTEMMA P

5079—Coronaria). Foliage silvery white, blossoms crimson, resembling single pinks. Strikingly beautiful, for beds, ribbons and borders. Seeds should be sown where plants are to remain and thinned to prevent crowding. Height 2 feet. Perennial. Pkt., 10c; oz., 65c.

ADONIS hP

5072—(Floss Adonis, or Pheasant's Eye). hA. 12 inches; flowers crimson and small. Seed should be sown in the autumn. Pkt., 10c.

5073—Vernalis. 18 in. May. Large star-shaped yellow flowers. Seeds, 10c per pkt.

ALYSSUM P

5080—(Saxatile). Showy, bright yellow flowers, blooms the first season if sown early indoors. Fine for borders. Height 6 to 12 inches. Pkt., 10c; ¼-oz., 35c.

ALYSSUM hA—A dainty little white flower. Fine for borders, edging and rockwork. In borders, sow thickly so as to form masses. Varies in height from 4 to 10 inches. Sow in spring or late August.

5081—Maritimum. Sweet. Pkt., 10c; oz., 40c.

5082—Little Gem. Pkt., 10c; oz., 75c.

5083—Procumbens. Of trailing habit; profuse bloomer. Pkt. 10c; oz., 75c.

5084—LILAC QUEEN. Beautiful soft lilac flowers changing to white as they age. It is a free and continuous bloomer of dwarf creeping habit. An excellent border plant. Pkt., 10c; ½-oz., 40c; oz., 75c.

ASTERS

The Aster will thrive in any soil, from a light sand to a heavy clay.

Cover seed with $\frac{1}{2}$ inch of soil. If the soil is too poor, add a good supply of Ground Bone, mixing thoroughly. Seed sown in the open ground in May will produce plants that will bloom finely in September and October. When the plants have three or four leaves, transplant, 12 to 18 inches apart each way, into well-prepared beds. Never allow a crust to form, as it prevents the air from entering the soil and allows the moisture to escape rapidly. If watering is necessary, give the plants a good soaking—do not merely sprinkle them.

For July and August flowers, sow in March or April in the cold frame, spent hotbed, or in pots and boxes indoors. Water thoroughly when necessary, and allow to become surface dry before watering again. Transplant as directed above.

Giant Ostrich Feather—The finest type of the Giant Comet, or Ostrich Feather type of aster. Much larger than the Giant Comet, the petals longer, more twisted, and produced in greater abundance. Borne on long stems, they make cut flowers par excellence.

- | | |
|----------------|--------------------|
| 5100—White | 5104—Crimson |
| 5101—Soft Pink | 5105—Silvery Lilac |
| 5102—Lavender | 5106—Light Blue |
| 5103—Rose. | 5107—Dark Blue |

Each of the above: Pkt., 10c.

5108—Mixed, all colors. Pkt., 10c.

QUEEN OF THE MARKET Asters are a most valuable type for bedding as well as for cutting, as they are the first to come into bloom. The plants grow 15 inches tall and they branch freely near the ground, giving long stems to the flowers. The blooms are well-rounded and double. They are of medium size, measuring 3 inches and more in diameter. Since we have been producing the seed in America this type has been greatly improved as to doubleness of the flowers. The Queen of the Market Asters are very popular with florists for early cutting.

- | | |
|---|--------------------|
| 5109—Lavender | 5114—Rose |
| 5110—Crimson | 5115—Scarlet |
| 5111—Flesh Pink | 5116—Purple |
| 5112—Dark Blue | 5117—Peach Blossom |
| 5113—Light Blue | 5118—White |
| 5119—Finest Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 25c. | |

EARLY BEAUTY ASTERS

A recently developed late flowering strain, which begins to flower in early September, lasting until destroyed by frost. Large flowers borne on long, stout stems from 18 to 24 inches. Plants grow nearly three feet in height.

- 5120—American Beauty. A bright crimson rose.
 5121—Lavender Beauty. A soft lavender.
 5122—Purple Beauty. A deep, rich purple.
 5123—September Beauty. A delicate shell pink.
 5124—White Beauty. A good white.
 Pkt., 15c; $\frac{1}{4}$ -oz., 65c.

5125—Finest Mixed. Pkt., 15c; $\frac{1}{4}$ -oz., 50c.

ASTERS—LATE BEAUTY TYPE

5169—Plants about 2 to 3 feet high, of branching habit. Mixed colors. Pkt., 15c; $\frac{1}{4}$ -oz., 65c.

GIANT BRANCHING COMET

Plants 2 to 3 feet high, branching habit, bearing a large quantity of fine Comet flowers, large and double.

- | | |
|-----------------|-------------------|
| 5127—Crimson | 5131—Deep Rose |
| 5128—Dark Blue | 5132—Royal Purple |
| 5129—Lavender | 5133—Shell Pink. |
| 5230—Light Blue | 5134—White. |

Each of above Pkt., 10c.

5135—Finest Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 40c.

5164—**HEART OF FRANCE**. Beautiful deep red flowers of excellent size and perfect formation. The blooms are borne on long and strong stems. The plants grow about 24 inches high. Pkt., 15c; $\frac{1}{8}$ -oz., 50c.

AMERICAN LATE BRANCHING ASTERS

A splendid strain, producing handsome double flowers on long stems. The plants are of strong growth, from 2 to 3 feet in height, and branch freely. These grand late-blooming Branching Asters are unsurpassed.

- | | |
|----------------|--------------------|
| 5136—Purple | 5141—Lavender |
| 5137—Cardinal | 5142—Scarlet |
| 5138—Crimson | 5143—Peerless Pink |
| 5139—Deep Rose | 5144—Shell Pink |
| 5140—White | 5145—Azure Blue |

Each of above Pkt., 10c.

5146—Finest Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 35c.

CREGO'S GIANT ASTERS

Crego's Giant Asters are one of the most popular types of all Asters. The flowers are of immense size, usually measuring 4 to 5 inches in diameter and they are quite thick through the center. The petals of the flowers are most attractively curved and twisted, resembling in looseness an ostrich feather. The flowers are double to the very center. They are borne on long and strong stems measuring 12 or more inches in length. The plants are of sturdy branching habit, growing 2 to 2 $\frac{1}{2}$ feet high. Crego's Giant Asters are a mid-season type.

Valued for their immense freedom of bloom and their artistic appearance.

- | | |
|-----------------------|-----------------------|
| 5147—Giant Shell Pink | 5152—Giant Azure Blue |
| 5148—Giant Purple | 5153—Giant Lavender |
| 5149—Giant Rose | 5154—Giant Pink |
| 5150—Giant Crimson | 5155—Giant White |
| 5151—Giant Dark Blue | |

Each of above Pkt., 10c.

5156—Finest Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 50c.

NEW CALIFORNIA GIANTS

Combining the "BEAUTY'S" rigorous growth and the Crego or Ostrich Feather type of flower. A true, non-lateral type with flowers much larger and more substantial than the improved Crego. Their immense size and beauty as well as their long and sturdy stems make them very attractive in floral work. We offer this year:

- 5157—Peach Blossom. Pkt., 15c.
 5158—Light Blue. Pkt., 15c.
 5159—Deep Rose. Pkt., 15c.
 5160—Dark Blue. Pkt., 15c.
 5161—Finest Mixed. Pkt., 15c; $\frac{1}{8}$ -oz., 75c.

5165—**PINK MIKADO OR ROCHESTER**. This superb variety is a branching type of the Giant Comet. The double flowers average from 3 $\frac{1}{2}$ to 5 inches in diameter. The color is a charming shade of silvery lavender pink. Pkt., 10c; $\frac{1}{8}$ -oz., 35c.

5166—**MIKADO**. Plants about two feet high, branching habit. Flowers of the Comet class, large and double. Finest Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 50c.

SINGLE ASTERS

5167—Single Chinese, finest mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

5168—Single Elegance, finest mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 40c.

ASTERMUM

Plants about 2 feet high, branching habit. Flowers large, double, well formed Comet class and a little earlier than Crego's.

5170—Lavender. Pkt., 10c.

5171—Rose Pink. Pkt., 10c.

5172—White. Pkt., 10c.

5173—Finest Mixed. Pkt., 10c; ¼-oz., 50c.

ASTER PERENNIAL

5174—Large Flowering Mixed. Various shades of blue. Pkt., 10c.

AMARANTHUS

Handsome foliage and interesting flowers making a striking effect in borders and beds. Thrives in hot, sunny situation with rather poor soil. 2 to 5 feet. Sow early and transplant.

5085—Salicifolius. Willow leaved. Pkt., 10c; oz., \$1.50.

5086—Caudatus. Graceful drooping flowers. Pkt., 10c; oz., 25c.

5087—Tri-color, or Joseph's Coat. Foliage scarlet, yellow and green. Pkt., 10c; oz., 75c.

5088—CRUENTUS (Prince's Feather). Dark red foliage and feathery flowers; 2 feet. Pkt., 10c; ¼-oz., 25c.

AMMOBIUM hha

5089—Alatum Grandiflora. 2½ ft. This pretty white Everlasting should be in every garden. Grows well in sandy soil. Pkt., 10c; ¼-oz., 25c.

ANCHUSA P

5090—(Italica—Dropmore). A splendid, free blooming plant for hardy borders, growing to a height of about 5 feet. Flowers are of beautiful gentian blue color. Seeds should be sown in sheltered place outdoors and transplanted when large enough to handle. Should be 2 to 3 feet apart. Pkt., 10c.

ANEMONE (Wind Flower) P

Very pleasing hardy plants for the herbaceous border. Fine large flowers, few plants compare with them in beauty. Excellent for bouquets and table decorations.

5091—St. Brigid's Strain. May-June. Double and single mixed. 12 in. A beautiful selection of the Coronaria varieties in a wonderful array of colors. Seeds, 20c per pkt.

ANTIRRHINUM—See Snapdragon.

AQUILEGIA—See Columbine.

ARABIS (Rock Cress) P

Charming dwarf spring-flowering plants of easy cultivation; valuable for beds, edgings.

5092—Alpina. 6 in. A most useful hardy perennial for spring bedding and rockeries. Early in the year the pure white flowers make a pleasing contrast in beds and borders with Alyssum saxatile compactum. Seeds, 10c per pkt.

ARCTOTIS GRANDIS (African Daisy) hA

5093—It forms much branched bushes 2 to 3 feet high; its daisy-like flowers are pure white on the upper surface, the reverse of petals pale lilac-blue. It delights in a sunny situation. As a cut flower it is especially valuable, the blooms lasting a week or ten days in water, and if undeveloped buds are cut and placed in a sunny window every one will open. Pkt., 10c.

ARGEMONE hA

5094—Grandiflora (The Prickly Poppy) 2 ft. Lovely plants with an ornamental foliage and large, handsome poppy-like flowers, snowy white, filled in the center with golden stamens, very beautiful. Pkt., 10c.

ASPARAGUS P

Beautiful fern-like foliage; fine for bouquets; an excellent house plant; white flowers; 4 to 6 feet.

5095—Plumosus Nanus (gP.) The dwarf variety so largely used by florists. Pkt., 10c.

5096—Sprengeri (gP). Fine for basket-work and for use with cut flowers. Pkt., 10c.

AUBRETIA GRAECA

5175—Blue hP. Resembling Alyssum in character; fine for rockwork or bedding. Pkt., 10c.

AURICULA

5176—(Primula auricula) hP A great favorite in England, where flower shows are held of this plant alone. From a prize collection. Pkt., 35c.

BACHELOR'S BUTTON—See Centaurea.

BALLOON VINE hha

5177. A rapid graceful climber, with inflated seed pods; flowers white. Tender annual. Pkt., 10c; oz., 35c.

BALSAM hha

(Ladies' Slipper—Touch-me-Not.) Hardy annual, easily grown.

5178—Finest Double Mixed. A splendid assortment. Pkt., 10c; ¼-oz., 30c.

BEGONIA gP

5179—Semperflorens, Mixed. Perennial. Pkt., 25c.

CALCEOLARIA gB

5180—Rugosa, Mixed. Finest shrubby variety for bedding; bear a profusion of beautiful flowers of various colors; 1 ft. Crop Failure. Cannot Supply.

5180A—Hybrida. Large-flowered; tigered or spotted. 2 ft. Pkt., 50c.

CALENDULA—POT MARIGOLD hA

Hardy annual about a foot high. Sow in the open ground early in spring, and the plants will bloom early in summer, continuing until late in autumn.

5181—Mixed. All sorts. Pkt., 10c; oz., 30c.

5182—Orange King. Pkt., 10c.

5183—Meteor. Pkt. 10c.

5184—Lemon Queen. Pkt. 10c.

5185—Double Mixed. Pkt., 10c.

5187—The Ball. Pkt., 10c.

CALLIOPSIS A

This annual is another of the garden's great forces in yellow, strengthened with rich red-maroons and browns. Sow in the open ground in spring, and, in thinning or transplanting, give the plants plenty of room to spread. Their tall, slender habit makes neat staking and tying necessary. Fine for cutting.

Tall

5188—Double Mixed. Pkt., 10c; oz., 30c.

5189—Single Mixed. Pkt., 10c; oz., 30c.

Dwarf

5190—Coronata Maxima. Pkt., 10c.

5191—Drummondii (Golden Wave). Pkt., 10c.

5192—Crimson King. Pkt., 10c.

5193—Dwarf Mixed. Pkt., 10c; oz., 35c.

Perennial—See Coreopsis.

CANARY BIRD FLOWER hha

5194—(Tropaeum Canariensis) Climbing plant with graceful foliage and yellow blossoms. Half-hardy annual. Pkt., 10c; ¼-oz., 15c.

CANDYTUFT ha

These Candytufts are of fine habit and profuse bloomers. They soon flower from seed and remain long in beauty. For massing in flower beds and borders and for edgings they are admirably adapted, while for cutting, the flowers are greatly prized.

5195—Giant Hyacinth-Flowered White. 1 ft. A grand border plant, bearing very large, bold spikes of snowy white flowers, habit sturdy and compact. This is an especially select stock. Pkt., 10c; ¼-oz., 25c; oz., 85c.

5196—Snowflake. The very sweetest of all. May be planted in fall as ground cover for tulip beds. Pkt., 10c.

5197—Little Prince. Very large heads of pure white flowers; fine for border and pots; 6 in. Pkt., 10c.

5198—Mixed Annual Sorts. Pkt., 5c; oz., 40c.

5199—Sempervirens. Perennial. White. Pkt., 10c.

CANNA—INDIAN SHOT gP

One of our best bedding plants; beautiful, ornamental foliage and large, brilliant flowers. Hardy perennial.

5200—Finest Mixed. Crozy's Hybrids; very fine. Pkt., 10c.

CANTERBURY BELLS B

(Campanula). Very ornamental garden plants growing 2½ feet high, producing large, nodding and charming bell-shaped flowers of many exquisite shades; hardy biennial. Sow seeds in May. Keep seedling well watered and transplant to permanent location in July or August. Give rich soil and plenty of room.

5201—Medium Single. Blue. Pkt., 10c; ¼-oz., 25c.

5101A—Medium Single. Rose. Pkt., 10c; ¼-oz., 25c.

5201B—Medium Single. White. Pkt., 10c; ¼-oz., 25c.

5201C—Medium Single. Mixed. Pkt., 10c; ¼-oz., 25c.

5202—Calycanthemum (Cup and Saucer) Blue. Pkt., 10c; ½-oz., 60c.

5202A—Calycanthemum, white. Pkt., 10c; ½-oz., 60c.

5202B—Calycanthemum, pink. Pkt., 10c; ½-oz., 60c.

5202C—Calycanthemum, light blue. Pkt., 10c; ½-oz., 60c.

5202D—Calycanthemum, mixed. Pkt., 10c; ½-oz., 60c.

5203—Persicifolia (P). Very fine, blooms in June. Blue or White. Pkt., 15c; ½-oz., 90c.

5204—Pyramidalis (P). Stately, hardy plant for pot culture or garden. Blue. Pkt., 10c; ½-oz., 50c.

5204A—Medium, Double Blue. Pkt., 10c.

5204B—Medium, Double White. Waxy appearance. Pkt., 10c.

5204C—Medium, Double Rose. Pkt., 10c.

5204D—Medium, Double Mixed. Pkt., 10c.



**USE SNAROL
TO RID YOUR FLOWER
GARDEN OF SNAILS
AND SLUGS**

WE PAY POSTAGE ON ALL FLOWER SEED

**CARNATION (Dianthus Caryophyllus) P**

Carnations are tender perennials, being easily winter killed. Splendid for cut flowers, deliciously fragrant. Colors pink, white and red. Sow seeds indoors in March. Transplant seedlings to other boxes when 1 inch high. Keep them growing well until soil is warm, then transfer to open garden. Height 1 to 1½ feet. Fine plants in season.

5205—Chabaud Everblooming. Extra Choice Double Mixed. Flowers in five to six months from sowing. Pkt., 15c.

5206—Double Grenadin. Comes into bloom very early and the charming, double, scarlet flowers are very valuable for forming bouquets. Red, white, yellow. Pkt., 15c.

5207—Margaret. Finest Double Mixed. Bloom in four months from seed. Pkt., 10c; ½-oz., 50c.

5208—Giant or Malmaison. Mixed. Pkt., 15c.

5209—Double Dwarf Vienna. Mixed. Large flowered and comes into bloom early, producing flowers of many colors and beautiful markings; a large proportion double. Pkt., 10c.

CARDINAL CLIMBER A

5210—This glorious and absolutely distinct new annual climber is undoubtedly the greatest acquisition to the flower world in years, and the most beautiful and brilliant climber ever grown. It is a strong and rapid grower, attaining a height of 25 feet with beautiful fern-like lacinated foliage and literally covered with a blaze of fiery cardinal red flowers from mid-summer to frost. The flowers are about 1 inch in diameter and are borne in clusters of 5 to 7 blooms each. Like all "Ipomoeas," it delights in a warm, sunny situation and good, rich soil. The seed should be soaked in water a few hours before sowing and not planted outside until about May 1. Pkt., 15c; 2 pkts., 25c; ½-oz., 75c.

CASTOR BEANS (Ornamental)

See vegetable seed. Section for Mole Bean.

RICINUS—Castor-Oil Plant A

Picturesquely showy and imposing, the Ricinus gives to the garden magnificent semi-tropic effects. Grown as a specimen, it makes a perfect pyramid of gigantic leaves.

5212—Borboniensis Arboreus. Green foliage; 15 ft. Pkt., 10c.

5213—Cambodgensis. Glistening dark maroon; stems black; 5 ft. Pkt., 10c.

5214—Hybridus Panormitanus. Cross between Cambodgensis and Zanzibariensis. Huge dark brown leaves, blue-powdered stems; upright habit. Pkt., 10c.

5215—Zanzibariensis, Mixed. Very ornamental; dark bronzy green and red leaves; 8 to 10 feet high. Pkt., 10c; oz., 35c.

5216—Sanguineus Tricolor. Blood red stems, deep green leaves, with red veins; 6 ft. Pkt., 10c; oz., 35c.

5217—Finest Mixed. Pkt., 10c; oz., 25c.

CENTAUREA ha

(Bachelor's Button—Cornflower)

Very popular annuals; will grow in the poorest of soil, either on seashore or mountains; seed can be sown either in fall or spring; sandy soil preferable. Height 2½ feet.

5218—Cyanus, Finest Single Mixed. Pkt., 5c; ¼-oz., 25c.

Centaurea Cyanus fl. pl (Double Bachelor's Button) Beautiful large double flowers.

5220—Double Blue. Pkt., 10c; ¼-oz., 25c.

5221—Double Mixed. Pkt., 10c; ¼-oz., 25c.

Centaurea Imperialis (Giant Cornflower) The flowers are of enormous size, fragrant and of charming colors; in form they resemble the fuzzy part of the thistle bloom. In colors from white to red to purple. Excellent for cutting.

5223—Mixed Colors. Pkt., 10c; ¼-oz., 35c.

5224—Marguerite. Flowers 4 inches across; purest white. Pkt., 10c; ¼-oz., 40c.

Moschatus (Sweet Sultan) Hardy annual, with very fragrant and showy flowers; 1½ feet. June to September.

5226—Finest Mixed. Pkt., 10c; ¼-oz., 35c.

5227—Suaveolens (Grecian Cornflower). Yellow flowers, showy. Pkt., 10c; ¼-oz., 35c.

See also Stokesia.

WHITE LEAVED CENTUREA (Dusty Miller) P

These are grown for foliage only; half-hardy annuals; leaves are silver-coated.

5228—Candissima. Thick, white, upright cut leaves; 1 foot. Pkt., 10c; ¼-oz., 50c.

5229—Gymnocarpa. Fine, fern-like leaves, very graceful and showy. 1½ feet. Pkt., 10c; ¼-oz., 35c.

CINERARIA A

5236—Hybridi Grandiflora. We pride ourselves in offering the choicest strain of this gorgeous flower; grand large bloom in umbel spikes are borne way above the foliage; colors and markings are superb; 1½ feet; tender annual; start under glass, pot and keep inside for pots. Pkt., 35c.

5237—Maritima Candidissima. P. Dusty Miller. Silvery foliage; hardy border plant, 2½ feet high. Pkt., 10c; ¼-oz., 35c.

CLARKIA 2 ft. A

Clarkias are popular summer annuals, all perfectly

hardy, and can be grown with the utmost ease in ordinary soil. They flower profusely, and are exceedingly bright and attractive, especially in large masses.

5238—Apple Blossom. Double apple blossom pink.

5239—Brilliant. Double salmon scarlet.

5240—Chamois. Double.

5241—Flesh. Double flesh pink.

5242—Queen Mary. Double rose carmine.

5243—Salmon Pink. Double salmon.

5244—Scarlet Queen. The flowers are a double orange salmon and develop to a glowing orange scarlet.

5245—White Prince. Very double, pure white.

Each of above pkt., 10c; any 3 pkts. for 25c.

5246—Special Mixture. Made up especially from the above named varieties. Be sure and include this in your order. Pkt., 10c; ¼-oz., 35c.

CHRYSANTHEMUM A

Do not confound these annuals with the winter-flowering sorts of the florists. They bloom profusely from early summer until frost, and, when grown in large beds or masses, their bright colors make a splendid show. The plants can be brought into bloom early by sowing the seeds in frames or window boxes, and afterwards transplanting to the garden; or seed may be sown where the plants are to flower, if the seedlings are thinned to 8 to 10 inches apart. Pinching back in early growth makes the plants bushy and shapely. Average height, 1 to 1½ ft.

5230—Coronaria. Double mixed. Pkt., 10c; ¼-oz., 25c.

5231—Tricolor. Single mixed. Pkt., 10c; ¼-oz. 35c.

5232—Tricolor. Single and double mixed. Pkt., 10c; ¼-oz., 25c.

5233—Fritescens (Marguerite or Paris Daisy. Pkt., 10c; ¼-oz., 40c.



5234—Shasta Daisy (Leucanthemum Perennial). Pkt. 15c; ¼-oz., 50c.

5235—Carinatum (Northern Star) Giant white, black center. Pkt., 10c; oz., 50c.

5235 ½—Carinatum. Single finest mixed. Pkt., 10c; oz., 40c.

CLEMATIS (Virgin's Bower) P

Excellent hardy, climbing perennials for trellises, arbors, verandas, etc. Do well in most locations.

5247—Paniculata. White, fragrant, very free blooming; 10 to 20 ft. Pkt., 10c.

5248—Jackmani Hybrids. Mixed. Collection of the best colors; 10 to 15 ft. Pkt., 15c.

CLEOME tB

Curious, ornamental, hardy annual, on castor-oil plant style. Blooms freely in sandy soil.

5249—Pungens (Giant Spider Flower). Pink. 3 ft. Pkt., 10c; ¼-oz., 35c.

COBAEA tP

Tender climbing perennials of rapid growth. 20 ft.

5250—Scandens. Purple, bell-shaped flowers. Pkt., 10c; oz., 60c.

5251—Scandens alba. White. Pkt., 15c.

COCKSCOMB tA

CELOSIA CRISTATA (Cockscomb) Very attractive and showy, producing massive heads of deeply colored flowers. Colors, red, purple and yellow. Sow very thinly in boxes indoors, transplanting to other boxes or thumbpots until little combs appear. Grows 9 to 12 inches tall.

5252—Cockscomb Tall Mixed. Pkt., 10c; oz., \$1.00.

5253—Dwarf Empress. Pkt., 10c; ¼-oz., 75c.

5254—Dwarf Fine Mixed. Pkt., 10c; ¼-oz., 65c.

5255—Plumosa (Feathered) Large plummy heads. For pots or open ground. Keeps well when cut. Grows 1 to 3 feet tall. Finest mixed. Pkt., 10c; oz., \$1.00.

5256—Childsii (Chinese Wool Flower). An unique form of the feathered cockscomb, growing 2 to 3 feet high, each branch terminated with a large head of rich crimson flowers that look as if made out of silky wool. Effective in beds and borders. Also valuable for cutting, as they can be dried, retaining their bright colors for weeks. Pkt., 15c; ¼-oz., 75c.

COIX LACHRYMA A

5257—JOB'S TEARS (Coix Lachryma). The seeds are strung up in the same way as beads. A strong grower with large deep green leaves growing 3 feet tall. Seeds very freely. Pkt., 10c; ¼-oz., 15c; ½-oz., 25c; oz., 45c.

COLEUS

5257A—Extra Fine Mixed. Pkt., 50c.

5258—COLLINSIA A

Free-flowering annuals. If sown in autumn, will stand the winter and flower early in spring. All are brightly colored and are excellent for growing in patches or clumps; grows in any garden soil. 1 to 1½ ft. Pkt., 10c; oz., 50c.

COLUMBINE (Aquilegia)

The Columbine is one of the most beautiful hardy perennials producing graceful spurred flowers on 2 foot stems. They are much prized for cut flower purposes, making dainty decorations. They are one of the most important of our early hardy flowers and should be grown in quantity, being easy to establish and thriving in almost any situation. Our Long-Spurred mixed are selected from the very finest kinds, the colors vary considerably, but all are choice, free in habit

and great value for massing, and with their long stems are splendid for cutting.

5259—Mrs. Scott Elliott's Strain of Long Spurred Hybrids. This strain is allowed by the Royal Horticultural Society to be the best ever raised, and has received awards whenever exhibited. The blooms are of large size and the spurs very long. The colors range through shades of lavenders, mauves, blues, purples, whites, creams, yellows, pinks, reds, etc. There are no jarring or crude tints, and the whole form a most harmonious mass of coloring seldom seen in other flowers. Pkt., 25c.

5260—Chrysanth. Pure golden yellow, single long spurs; three feet. Pkt., 10c.

5261—Skinneri (Mexican Columbine) Large scarlet and yellow flowers. Pkt., 15c.

5262—Single Mixed. Many varieties. Pkt., 10c; ¼-oz., 40c.

5263—Double Mixed. Pkt., 10c; ¼-oz., 40c.

COREOPSIS P

(Perennial Calliopsis)

5264—COREOPSIS (P) (Lanceolata) Large showy, bright yellow flowers produced in great abundance from June until frost; fine for cut flowers. Sow seeds indoors very early, transplanting to open when soil is warm. Height 1 to 2 feet. Pkt., 10c.

COSMOS A

One of the notable fall flowers. A strong, tall-growing annual, with bold flowers of exquisite daintiness and ariness heightened in effect by their foliage setting of feathery green. It is most effective when planted in broad masses, or long background borders against evergreens or fences. We offer only the choice, large-flowering strains. To make sure of flowering early, Cosmos should be started indoors and transplanted into dry, sandy, or poor soil, in a sunny situation.

EXTRA EARLY MAMMOTH FLOWERING

Seed started early in the house or frame, will produce flowers a month earlier than Mammoth Perfection.

5265—Crimson. Pkt., 10c.

5266—Pink. Pkt., 10c.

5267—White. Pkt., 10c.

5268—Mixed. Pkt., 10c; ¼-oz., 30c; oz., \$1.00.

MAMMOTH PERFECTION

Large flowers on long stems, lasting until frost.

5269—Fine Mixed. Pkt., 10c.

NEW DOUBLE VARIETIES

These called double crested are not fully double, but are double crested, having double centers and a row of petals around the base of the flower; very effective.

5270—Fine Mixed. Pkt., 10c; ¼-oz., 35c.

CYCLAMEN P

A tender bulbous perennial, used in green houses and window gardens. It can be grown from seed with a little care. Sow in fall or early in the spring.

5271—Finest Mixed. Pkt., 35c.

CYPRESS VINE 10 ft.

For training upon a light ornamental trellis the Cypress Vine cannot be excelled. It has a profusion of scarlet or white star-shape blossoms, and its finely cut foliage is particularly adapted to ornamental work.

5272—White. Pkt., 5c.

5273—Scarlet. Pkt., 5c.

5274—Mixed. Pkt., 5c; ¼-oz., 20c.

5275—Ivy-Leaved Scarlet. A rapid growing variety with deeply lobed, ivy-like leaves and small scarlet flowers. Pkt., 10c.

DAHLIA

This favorite half-hardy perennial is most easily grown from seed sown early in the house or greenhouse. Will bloom freely outdoors until frost the first season; 3 to 6 feet.

5276—Double Mixed. Pkt., 10c; ¼-oz., 75c.

5277—Single Mixed. Pkt., 10c; ¼-oz., 35c.

5278—Single Cactus, mixed. Pkt., 10c.

5279—Collarette, finest mixed. Pkt., 10c.

DAISY Bellis Perennis P

A well-known and popular, low-growing plant bearing beautiful flowers. Hardy perennial.

5280—Double Rose (Longfellow). Pkt., 10c.

5281—Double White (Snowball). Pkt., 10c.

5282—Double Mixed, Very fine. Pkt., 10c.

5283—Double Maxima, mixed. Extra large. Pkt., 15c.

Shasta Daisy—(See Chrysanthemum Leucanthemum).

Daisy (Paris Daisy)—See Chrysanthemum frutescens)

BRACHYCOME hha

The well-known "Swan-River Daisy" is a beautiful little, half-hardy annual; blooms all summer; fine for edgings and borders. Should be started in hotbed. 1 ft.

5284—Iberidifolia Mixed. Jkt., 10c; ¼-oz., 35c.

DIMARPHOTHECA

(African Orange Daisy)

Easily grown, hardy annual of great beauty; 12 to 15 ins. in height, and bushy.

5285—Aurantiaea. Orange; very fine. Pkt., 10c; ¼-oz., 25c.

5286—Transvaal Daisy (Gerbera Jamesoni) hhD Intense vermilion. Flowers 4 inches across on tall stems 18 inches high. Sow seed upright, stem end up, in box of peat and loam. Two plants from a package is a fair average. Do not over-water; very beautiful; t. p. Per Pkt. of 15 seeds, 25c.

PAINTED DAISY—See Pyrethrum Roseum.

AFRICAN DAISY—See Arctotis Grandis.

DATURA (Angel's Trumpet) 3 ft. hhP

Handsome plants for subtropical bedding in summer, having large trumpet-shaped fragrant flowers. They should be given light soil and a sunny-sheltered position. Make grand plants for the greenhouse.

5287—Cornucopia (Horn of Plenty) Immense flowers, triplicate in form, like three cones, one within the other. Color rich violet, with white interior. Pkt., 10c.

5288—Golden Queen. Very large double bright yellow flowers, a fine pot plant. Pkt., 10c.

5289—Double Mixed. Pkt., 10c.

DELPHINIUM (Larkspur) Perennial

Profuse blooming plants, their tall spikes of many colored flowers produce a striking effect when planted in groups. Sow seeds in boxes indoors in early spring, transplanting to other flats when second leaf appears. When soil is warm, set in open ground 6 to 8 inches apart, resetting the next spring, giving rich soil and plenty of room. As a cut flower this is one of the best. Height 3 to 6 feet.

5290—Chinese Azure Fairy. Blue; fine for cutting. Pkt., 10c; ¼-oz., 50c.

5291—Chinese Blue Butterfly. Pkt., 10c; ¼-oz., 60c.

5292—Chinese Album White. Pkt., 10c; ¼-oz., 50c.

5293—Belladonna. Light blue. Pkt., 25c; ½-oz., \$1.35

5294—Formosum. Dark blue. Pkt., 10c; ½-oz., 90c.

5295—Cardinale. Brilliant scarlet. Pkt., 15c; ½-oz., \$1.00.

5296—Bellamosum. Same color as Formosum, larger, not subject to blight. Pkt., 15c; ½-oz., \$1.25.

5296A—Zalil. 3 ft. Sulphur yellow. Seed germinates very slowly. Seeds, 25c per pkt.

5296B—Delphinium. Gold medal hybrids mixed. Pkt., 10c.

LARKSPUR A

The annual Larkspurs are quite hardy and bloom in the later summer months, furnishing flowers of striking beauty in form and color. Tall varieties are suitable for shrubberies and borders, while the dwarf sorts produce charming effects in beds. Height 1 to 2 feet.

5297—Dwarf Rocket. Finest colors. Double Mixed. Pkt., 10c; oz., 75c.

5298—Tall Double Stock Flowered. Finest mixed. Pkt., 10c; oz., 65c.

5299—Emperor. Branching, mixed. Pkt., 10c; oz., 65c

5300—Giant Hyacinth-Flowered Mixed. 3 feet. Derives its name from the striking resemblance of the flowers to a double Hyacinth. Delicate colors. Pkt., 10c; oz., 65c.

DIGITALIS—See Foxglove

DOLICHOS—See Hyacinth Bean

5301—DIDISCUS "Lace Flower" A

Hugelia Coerulea—Rare, Dainty, Exquisite

A rare lovely free-flowering half-hardy annual, growing about 18 inches high and branching nicely. Flowers light blue or lavender, very dainty and beautiful. The bloom is a cluster of tiny petaled flowers, quite full to the center, the pistils giving the appearance of dainty lace. Florists grow it under glass for cut flowers. Plants set in the garden bloom from June until late fall. A new flower here, but a native of Australia. Pkt., 10c.

ECHINOCYSTIS LOBATA

(SEE WILD CUCUMBER—Page 46)

ESCHSCHOLTZIA (California Poppy)

The California Poppy is an exceptionally bright and handsome flower. It adorns the fields and railway embankments. If your premises have a wild or uncultivated plot, by all means plant some Eschscholtzia seed. It grows easily and once seeded will reseed itself. Sow the wild sort by the pound over the hillside. Multiply the native flowers by the thousands. The leaves of Eschscholtzia are fine cut and feathery. Sow in the fall out in the open for the plants do not transplant well. Height, 1 to 1½ feet. ha.

5303—New Eschscholtzia Oriental Queen. This one of the prettiest Eschscholtzias ever introduced. The inside of the petals is a beautiful shade of pale buff while the outside of the petals is a rich raspberry red. The blooms are of immense size, the fully expanded flowers measuring four inches in diameter. Price per Pkt., 25c.

5303A—California. Large pale yellow. Pkt., 10c; oz., 75c; ¼-lb., \$2.00.

5304—Carmine King. Beautiful carmine rose color, both on the interior and exterior of the flower. Pkt., 10c; oz., \$1.00.

5305—Golden West. Flowers bright yellow and orange, penciled and blotched. Pkt., 10c; oz., 50c.

(California Poppy Continued on Next Page)

ESCHSHOLTZIA—Continued

- 5306—Mandarin.** Inner side of the petals orange, the outer side brilliant scarlet. Pkt., 10c; oz., 75c.
5307—Mikado. Flowers lustrous orange-crimson, very brilliant. Pkt., 10c; oz., 75c.
5308—The Geisha. Orange red outside, rich golden within. Pkt., 10c; oz., \$1.00.
5310—Double and Semi-Double Mixed. Pkt., 10c.
5311—Thorburni Coppery Orange. Pkt., 10c; oz., 75c.
5312—Brilliant Mixed. Pkt., 10c; oz., 50c.

EUPHORBIA

These are valuable for the showy variegation of the leaves. Plant seed early in May.

5313—Marginata (Snow on the Mountain). Of open free branching growth; 3 feet in height. The large dark green leaves are bordered with a broad band of snow-white. Pkt., 10c; ¼-oz., 25c.

5314—Heterophylla (Mexican Fire Plant) This plant is somewhat similar to the Poinsetta and produces large bracts of brilliant scarlet leaves on top of each spike. Grows quickly from seed sown in the open early in May. Height, 2½ to 3 ft. Pkt., 15c; ¼-oz., 45c.

EVERLASTINGS

Everlastings have become popular again; winter bouquets of your own growing make an attractive present for a friend, besides supplying during the long cold winter when flowers are scarce, a bit of brightness for your own home. The drying is a simple operation. Cut before fully expanded, bunch like sweet peas and hang on a line in a warm, dark, dry room. They will dry thoroughly in ten days.

Annuals

- 5097—Everlasting Flowers.** All kinds mixed. Pkt., 10c
5071—Acrolinium Roseum. 2 ft. Pkt., 10c.
5089—Ammobium Alatum Grandiflorum. 2½ ft. Pkt., 10c.
5341—Gomphrena (Globe Amaranth) Mixed, all colors. Pkt., 10c.
5347D—Helichrysum (Strawflower) 2 to 3 ft. Special Mixture. Pkt., 10c.
5546—Rhodanthé. 1 ft. Mixed colors. Pkt., 10c.
5601—Statice Russica (Suworowi) Ppt., 10c.
5599A—Bonduelli. Pkt., 10c.
5599—Sinuata True Blue. Pkt., 10c.
5597—Sinuata White. Pkt., 10c.
5672—Xeranthemum Double Mixed. 2 ft. Pkt., 10c.

Perennials

- 5344—Gypsophila Paniculata Fl. Pl. (Baby's Breath)** Pkt., 25c.
5395—Lunaria Biennis, Honest or Peter's Pence. Pkt., 10c.
5601—Statice Latifolia (Sea Lavender) Pkt., 10c.
5674—Everlasting Mixed. 1 to 2 ft. Pkt., 10c.
All the Ornamental Grasses.
FEVERFEW—See Matricaria.

FORGET-ME-NOT (Myosotis) hP

These dainty little flowers love cool, moist soils, and, like pansies, bloom freely in fall and early spring. They make beautiful close borders, or edgings, and will bloom nicely in winter in a cool room or coldframe. They establish themselves by self-seeding. Sow in spring in a warm, sunny border. Most varieties bloom freely the first season and profusely the second. Average height, 6 to 12 in.

5315—Alpestris Victoria. Strong-growing; dwarf; flowers large, globular, sky-blue, abundant; fine for borders, pots or cutting. Pkt., 15c.

5316—Hybrida, Ruth Fischer. Pure Forget-me-not blue. Fine for cutting and for hanging baskets. Can be forced successfully and, owing to its extreme hardiness, it is valuable for spring bedding in open ground. Pkt., 25c.

5317—Palustris (True Forget-me-not) Dark blue; stems creeping at the base; blooms the second year abundantly all season; the best known of all. Pkt., 15c.

5318—Palustris semperflorens. Bright blue; a dwarf form of *M. palustris*, blooming from spring until autumn; foliage a good shade of green. Pkt., 15c.

5319—Alpestris. Of trailing habit, with pretty blue flowers. Pkt., 10c; ¼-oz., 40c.

FOUR O'CLOCK (Mirabilis) hA

Favorite half-hardy annual of the easiest culture and very suitable for large beds and borders. Called Four O'Clock because it opens its blossoms at that hour in the afternoon. Also known as Marvel of Peru. Handsome, free-flowering, sweet-scented; blossoms variegated, striped and of various colors.

5319½—Tall Mixed. Pkt., 10c; ¼-oz., 25c.

5320—Dwarf Mixed. Pkt., 10c; ¼-oz., 30c.

FOXGLOVE (Digitalis) hB

The tall flower-spikes of the Foxglove often 2 to 3 feet in height, are particularly handsome when grown among shrubbery or in bold masses, and as a background for lower-growing plants, they are very attractive. Hardy perennials, they are most satisfactory when treated as biennials. Sow the seed out of doors in spring and transplant the seedlings into their permanent places. They will bloom magnificently the following spring; give them a deep soil in partial shade.

5321—Mixed Gloxinia Flowered. Pkt., 10c ¼-oz., 30c.

5322—Gloxinia Flowered Purple. Pkt., 10c; ¼-oz., 40c.

5323—Grandiflora Yellow. Pkt., 10c; ¼-oz., 50c.

GALLARDIA (Blanket Flower) hP

Both the annual and perennial varieties of Gaillardia are very showy and free bloomers all summer long until frost; good in any situation and easily grown. The individual flowers are of large size, very durable, and most brilliant in color; fine for bouquets. 2 to 3 ft.

5324—Grandiflora maxima. Golden yellow. 2½ ft. Pkt., 10c; ¼-oz., 25c.

All the following Picta sorts are most elegant annuals and well deserve generous plantings.

5325—Picta. Red and yellow; very brilliant. Pkt., 10c; ¼-oz., 25c.

5326—Picta, Lorenziana. Double; mixed colors. Pkt., 10c; ¼-oz., 50c.

GENTIANA P

Showy hardy perennials, valued for their beautiful, intense blue flowers early in the season.

5327—Acaulis (Blue Gentian) Dark blue. 3 in. Pkt., 10c.

GERANIUM P

Most valuable greenhouse plants, blooming continuously. For bedding in the outdoor garden nothing equals them. 1½ ft.

5328—Zonale. Scarlet. Pkt., 10c.

PELARGONIUM P

Popularly called "Lady Washington Geraniums." 2 ft.
5329—Show Varieties, Large-flowered, Mixed. Pkt., 50c.

GERBERA TRANSVAAL DAISY (*Gerbera Jamesonia*)
—See Daisy.

GEUM P

Handsome hardy perennials; bloom freely all season; fine for bouquets. 1½ ft.

5330—*Coccineum*. Scarlet. Pkt., 10c; ¼-oz., 40c.

5331—*Mrs. J. Bradshaw*. Large; brilliant scarlet. Pkt., 25c; ¼-oz., 50c.

GILIA A

Pretty hardy annuals that bloom most freely and continually the whole season. Do finely in any situation; look well on lawn and in beds; are good for rockeries, and can be planted at any time. 1 ft.

5332—*Dwarf Mixed*. Pkt., 10c; ¼-oz., 25c.

GODETIA A

Favorite, free-blooming, hardy annuals with widely opened flowers of satiny texture, and of the most delicate and lovely colors. They are beautiful for solid beds, border lines, pots, and for growing in shaded places, where so few really fine flowers will flourish. Sow seeds in the open border in spring, or in a cold-frame, and transplant seedlings to stand a foot apart in rather thin soil. Fine for cut flowers. Average height, 1 ft.

5333—*Crimson Glow*. Intense, dazzling crimson; fine compact grower; very floriferous. Pkt., 15c.

5334—*Duchess of Albany*. Satiny white. Pkt., 10c.

5335—*Gloriosa* (Lord Roberts) Darkest red; dwarf. Pkt., 10c.

5336—*Lady Albemarle*. Dark crimson. Pkt., 10c.

5337—*Lady Satin Rose* (*G. Whitneyi compacta*, Brilliant) Bright carmine. Pkt., 10c.

5338—*Rosamund*. Large; glossy pink. Pkt., 10c.

5339—*Tall Mixed*. Pkt., 10c; ¼-oz., 25c.

5340—*Dwarf mixed*. Pkt., 10c; ¼-oz., 35c.

The *Godetia* is one of the most attractive flowers on Hoods Canal. It follows the *Rhododendrons* with wonderful effect and beauty.

5341—GOMPHRENA (Globe Amaranth) A

These well-known, hardy annuals are among the most popular of the Everlasting for dried winter bouquets; also well adapted for beds and edgings in the garden. Their round heads of flowers are also called Bachelor Button. 1 ft. Pkt., 10c; oz., 50c.

GOURDS—20 ft. A

These are desirable in many places where an immense amount of vine is wanted quickly. The blooms of some are quite striking and handsome. With many sorts the fruit is unique and ornamental and often useful. The small fancy gourds are excellent toys for children, while the large gourds may be used as dippers, sugar troughs and bowls.

5342—*Calabash or Pipe Gourd*. Odd-shaped fruit which is used to an advantage in making pipes. Pkt., 10c.

5343—*Mixed Ornamental*. Pkt., 10c.

GYPSOPHILA (Baby's Breath)

Both the annual and perennial varieties are most easily grown; very graceful and delicate flowers and foliage; fine for rockwork or shrubbery and bouquets. 2 ft.

5344—*Elegans grandiflora alba*. Large-flowering; white. Pkt., 10c; oz., 40c.

5345—*Elegans rosea*. Rose. Pkt., 5c.

5346—*Paniculata P.* White; fine for bouquets. Pkt., 10c; ¼-oz., 25c.

5347—*Paniculata P. fl.-pl.* Fine clusters of double white flowers; rare; foliage very dainty and filmy; very fine for cutting. Pkt., 25c.

HELICHRYSUM

A very beautiful annual everlasting flower, available in a wide range of colors. If cut before quite developed the flowers are very lasting.

5347A—*Monstrosum*, Golden ball. Pkt., 10c.

5347B—*Monstrosum*, Fire ball. Pkt., 10c.

5347C—*Monstrosum*, Silver ball. Pkt., 10c.

5347D—*Monstrosum*, Finest Mixed. Pkt., 10c.

HELIOTROPE

These favorite greenhouse and bedding plants are highly valued for their scented flowers; succeed best in light but rich soil; bloom first season from seed. 1½ ft.

5347E—*Madame Brnant*, large-flowered, dark lilac, superb. Pkt., 15c.

5347F—*Finest Mixed*. Pkt., 10c; ¼-oz., 50c.

HIBISCUS (Rose Mallow) 3-5 ft.

Noble, shrub-like plants, with handsome green foliage, bearing throughout summer large bright flowers, from 3 to 5 inches in diameter. Very hardy. Suitable for garden and indoor use when cut.

5347G—*Mixed Mallow Marvels*. Grand Assortment. Pkt., 10c; ¼-oz., 30c.

HOLLYHOCK P

One of the best hardy garden flowers. Makes a charming hedge or background. Hollyhock rust is the bane of every person who tries to grow hollyhocks. There is no remedy, but much can be done to prevent it and reduce the damage by spraying the plants with Bordeaux mixture. 6-8 ft. August to September.

Double Varieties

5348—White

5352—Maroon

5349—Rose

5353—Black

5350—Salmon

5354—Yellow

5351—Crimson

5355—Blood Red

Each color, pkt., 10c; 5356—*Mixed Pkt.*, 10c ¼-oz., 50c.

5357—*Newport Pink*. The finest pure pink, exquisite shade. Pkt., 15c.

5358—*Allegheny Mixed*. Flowers come single, semi-double and double, seldom less than 5 inches across, and are beautifully fringed. They are perpetual bloomers, 2 to 4 buds forming at the base of every leaf, where the old-style Hollyhocks have but 1 or 2. These buds open in succession, prolonging the flowering season until autumn. Pkt., 10c; ¼-oz., 40c.

Single Varieties

More permanent and hardy than the double and when planted with a deep background, such as arborvitae hedge, they afford a most striking effect. Fine among shrubbery and will last for years when once established.

5359—*Mixed*. Pkt., 10c; ¼-oz., 35c.

HUMULUS JAPONICUS (Japanese Hop) 20 ft. tA

Rapid summer climber; the foliage is luxuriant, making a dense covering. It is one of the best plants for covering verandas, trellises, etc. Heat, drought and insects do not trouble it.

5360—*Green Leaved*. Pkt., 10c; ¼-oz., 35c.

5361—*Variegated Leaved*. The large, handsome leaves are beautifully variegated white, green and yellow. Pkt., 10c; ¼-oz., 50c.

5362—HYACINTH BEAN (Dolichos Lablab A

Rapid growing, ornamental, climbing annuals, bearing clusters of beautiful purple and white flowers, followed by highly ornamental seed pods. Mixed. Pkt., 10c; oz., 20c.

HUNNEMANNIA ha

5363—Fumariaefolia (Bush Escholtzia, or Yellow Tulip Poppy) 1½ ft. The plants grow into a shrubby bush and produce their large cup-shaped flowers 3 in. across on stems 12 in long. The color is of a clear, bright yellow; the petals are broad and crinkled, like crushed satin. The cut blooms keep in water two weeks. Pkt., 10c; ¼-oz., 35c.

ICE PLANT ta

5364—Mesebryanthemum Crystallinum. 6 in. Foliage very ornamental, being covered with ice-like globules and prized for garnishing; a valuable plant for dry, sunny situations on banks, rockwork, old walls and ruins, etc., also for sunny borders. Pkt., 10c; ¼-oz., 25c

JOB'S TEARS—See Coix Lachrymae.

INCARVILLEA hp

5365—Delavayi (Hardy Gloxiania) 2 ft. June. Splendid gloxinia-like flower borne in large bright rose umbels. Likes a sunny location. Seeds, 25c per pkt.

IPOMEA (Morning Glory) A**Imperial Japanese**

5366—Morning Glories. The colors run from snow white through all possible shades of blue and red, from palest pink to darkest reds and purples. Flowers are streaked, mottled and bordered in wonderful fashion. The leaves are also very handsome; ivy-like and heart-shaped, some are rich green, while others are streaked and marbled with white or yellow. ¼-lb., \$1.00; 1 oz., 30c; ½-oz., 20c; pkt., 10c.

5367—Learii. Satiny blue with crimson bars. A good greenhouse climber. Pkt., 10c.

5368—Rochester. Flowers 4 to 5 in across, deep violet blue in the throat, blending out to an azure blue, bordered with a wide white band around the edges. Pkt., 10c.

5369—Rubro-Cocerulea (Heavenly Blue). Deep pure sky blue flowers, delicately shading to white toward the center. One of the most gorgeous blue flowers. Pkt., 10c

5370—Setosa (Brazilian Morning Glory) The stems and leaf stalks are covered with reddish brown hairs. The deeply lobed leaves are about 9 inches across; flowers about 2 inches in diameter, of delicate texture, tinted pink with a five-pointed star of satiny pink and are followed by curious seed pods. Pkt., 10c.

CONVOLVULUS

5371—Major. Tall Mixed. Pkt., 10c.

5372—Minor. Dwarf Mixed. Pkt., 10c.

5373—Double Mixed. Pkt., 10c.

IPOMEA (Moonflower)

5374—Ipomea. Noctiflora Black Seed. Pkt., 10c.

5375—Ipomea. Noctiflora White Seed. Pkt., 10c.

KOCHIA (Improved Summer Cypress) A

A rapid-growing, hardy annual; foliage green, turning to fiery red in autumn; very ornamental on the lawn. 2 to 3 ft.

5376—Kochia Childsi (Giant Kochia) Pkt., 10c.

5377—Trichophylla. Pkt., 10c; oz., 30c.

LOBELIA A

The Erinus Varieties bloom very quickly from seed and flower all through the season. For beds, edgings, baskets and pots there is nothing prettier. Sow outdoors in early spring where the plants are to grow, and thin moderately; or transplant several inches apart in rich, open soil. Some stimulant given when they are in bloom greatly improves the flowers. Almost all are also good winter conservatory plants of trailing habit. The perennial or tall varieties are handsome, showy plants and will be found quite effective for backgrounds and grouping.

ERINUS VARIETIES

5391—Gracilis. Blue; trailing; beautiful for baskets. Pkt., 10c.

5392—Speciosa, Crystal Palace. A favorite blue-flowered edging plant. 6 in. Pkt., 10c.

5393—Erecta, Crystal Palace compacta. Dark blue; for bedding. 6 in. Pkt., 20c.

PERENNIAL VARIETIES

Standing bold and erect with its crimson-scarlet flowers, this handsome, native perennial Lobelia is invaluable for the border or grouping among evergreens. 2½ ft.

5394—Cardinals (Cardinal Flower) Pkt., 10c.

PUERARIA (Kudzu Vine) hp

5378—Thunbergiana (Kudzu Vine or Jack-and-the-Bean-Stalk) 50 ft. Flourishes where nothing else will grow. The large bold leaves of the brightest green afford a dense shade. Its greatest feature is its wonderful strong growth. Pkt., 10c; ¼-oz., 25c.

LANTANA gs

5379—Hybrida, Mixed. 2 ft. Shrubby plant with Verbena-like flowers in shades of white, red and yellow. May be grown in pots or set out in summer, remains in bloom late in autumn. They have an agreeable aromatic perfume. Pkt., 10c; ¼-oz., 25c.

LARKSPUR—See Delphinium.

LATHYRUS LATIFOLIUS (Perennial Pea)

These have not the fragrance of sweet peas, but bloom through a long season; are hardy and will live for years; they make a beautiful screen for rocks, stumps, fences, etc. 4 to 8 ft.

5380—Crimson. Beautiful shade. Pkt., 10c.

5381—Pink Beauty. Blossoms white, veined, edged and shaded pink. Pkt., 10c.

5382—White. Valuable for cut flowers. Pkt., 10c.

5383—Mixed Pkt., 10c; oz., \$1.00.

5384—Red. Pkt., 10c.

LAVENDULA

Delightfully fragrant flowers, much used when dry on account of their sweet odor.

5385—Vera (True Lavender) June-August. Blue. 2 ft. Pkt., 10c.

LINARIA (Toad Flax) P

Showy free flowering plants of a trailing habit. Good for borders, window boxes or rockeries.

5386—Cymbalaria (Kenilworth Ivy) 3 in. Dainty lilac and orange; flowers throughout summer; training habit. Pkt., 10c.

LINUM (Flax)

5387—Perenne P. 2 ft. Pearly blue flowers. A graceful hardy perennial. Pkt., 10c.

5388—Album. P. Milk white flowers, very decorative. Pkt., 10c.

5389—Flavum. P. 1 ft. Yellow. Pkt., 10c.

5390—Grandiflorum Rubrum (Crimson Flax) A. 2 ft. One of the most brilliantly colored of summer annuals, flowers glowing crimson-rose. Very beautiful in beds and borders, and may be had in bloom from May to October by successive sowings. Pkt., 10c; $\frac{1}{4}$ -oz., 35c.

LUNARIA A

5395—Biennis (Honesty or St. Peter's Penny) Flowers purple, followed by silvery seed pods, prized for winter decoration. Seeds, 10c per pkt.

5396—Alba. Pure white. Seeds, 10c per pkt.

5396A—Crimson. Pkt., 10c.

LUPINUS

Annual Varieties

These garden favorites are among the most beautiful of our hardy annuals; extremely varied in color, of the easiest culture, and bloom all summer. Splendid for beds, borders and back grounds. 2 to 3 ft.

5397—Mixed, Rose, Sky Blue. Pkt., 10c; $\frac{1}{4}$ -oz., 30c.

5397A—Rose. Pkt., 10c.

5397B—Sky blue. Pkt., 10c.

LUPINUS (Polyphyllus)

Most beautiful hardy border plants producing tufts of soft green foliage, from which arise in continuous succession the stately spikes of bloom.

5397C—Blue. 3 ft. Stately spikes of blue, flowers all summer. Seeds Pkt., 10c.

5397D—Albus. Large, pure white spikes. Seeds, Pkt., 10c.

5397D—Roseus. 4 ft. Light and dark rose flowers on long stem; fine for cutting. Seeds, Pkt., 10c.

5397F—Mixed. Splendid value. Seed, pkt., 10c.

LYCHNIS P

Free-flowering, hardy perennials, with brilliantly colored flowers; excellent for massing in beds and borders.

5398—Haageana hybrids. Mixed, fine colors. 1 ft. Pkt., 10c.

MARIGOLDS (Tagetes) Annual

The African and French Marigolds are old favorite free-flowering annuals of easy culture; both are extremely effective. The African have uniformly large yellow or orange-colored flowers, and are well adapted for large beds or mixed borders; the French are dwarfier in growth, with beautifully striped flowers, and better suited for low beds or borders; they succeed best in a light soil, with full exposure to the sun. A vase or bowl of any of the rich yellow sorts, in combination with a few blue Larkspurs or Cornflowers, is very striking.

TALL AFRICAN VARIETIES

5400—Tall African. Splendid for cutting and decoration; 3 feet.

5401—Orange Ball. Enormous double flowers of rich deep golden orange. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

5402—Lemon Ball. Extra large double flowers of a clear canary yellow. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

DWARF FRENCH VARIETIES

DWARF FRENCH—These form small, compact bushes about 12 inches high, covered with smaller but very rich colored flowers. Fern-like foliage.

5403—Dwarf Golden. Flowers ball-shaped, pure golden yellow. Pkt., 10c; $\frac{1}{4}$ -oz., 30c.

5406—Dwarf Brown. Rich reddish-brown or mahogany marked with orange; double. Pkt., 15c; $\frac{1}{4}$ -oz., 30c.

5407—Dwarf Gold Striped. Very double, mahogany red, striped with gold. Pkt., 10c; $\frac{1}{4}$ -oz., 30c.

5408—Dwarf French Mixed. All shades. Pkt., 10c; $\frac{1}{4}$ -oz., 30c.

5410—Signata Pumila. A miniature Marigold, forming compact little plants 6 to 8 inches high, and completely covered with flowers, which are bright yellow with brown stripe down the center of each petal. Very striking for edgings. Sow the seed in spring in boxes and transplant. Pkt., 10c.

5403—Eldorado. Double flowers of large size in all shades of yellow. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

5404—Tall African Mixed. All shades. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.

5413—Electric Light, Double Legion of Honor. Pkt., 10c; $\frac{1}{4}$ -oz., 30c.

Gloxinia-like flowers, ranging in color through white, pale yellow, golden, flesh, rose, crimson and maroon; handsomely blotched and striped. Does best in partial shade. Pkt., 10c.

DWARF FRENCH SINGLE

5414—Finest Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 30c.

5414A—Signata Pumila, bright orange, fine for border work. Pkt., 10c.

FRENCH TALL DOUBLE

5411—Striped Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 30c.

5412—Finest Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

MALOPE (Mallow-Wort) 2 ft. A

Showy plants for large mixed flower and shrubby borders. The flowers are large and handsome.

5399—Finest Mixed. Pkt., 10c.

MATRICARIA P

5415—Capensis Fl. Pl. (Feverfew) 3 ft. Neat small, double white flowers, well adapted for bedding and cutting. They are perennials in mild climate, but in our latitude are treated best as annuals. Pkt., 10c; ¼-oz., 30c.

MAURANDIA gP

5416—Mixed. 10 ft. Slender grower and abundant bloomer. Very desirable for greenhouse and garden. Elegant Gloxinia-like flowers, which range through white, rose, blue and purple in color. Pkt., 10c; ¼-oz., 50c.

MIGNONETTE (Reseda ororata) A

Seed of this popular, hardy annual can be sown at any time, and if successive sowings are made its fragrant, modest-colored flowers may be gathered outdoors until November. Sow in pots or boxes under glass in February or March, and thin or pot off the seedlings to make good plants for bedding out in April. Sow out-

doors in rows about April 1, and again regularly at intervals of about three weeks till August, a row or two at a time for succession. The July sowing will make good winter-flowering plants. 1 ft.

5417—Reseda Odorata Grandiflora (Sweet Mignonette) Pkt., 10c; oz., 25c.

5418—Golden Queen. Golden yellow. ¼-oz., 25c; Pkt., 10c.

5419—Goliath. Red; enormous spikes; striking; very sweet-scented. ¼-oz., 35c; Pkt., 15c.

5420—Machet Dwarf Deep Red. Pkt., 10c.

5421—Dwarf Machet Mixed. Pkt., 10c; ¼-oz., 35c.

MIMOSA (Sensitive Plant) A

A curious and interesting half-hardy annual, with pinkish flowers; leaves close when touched. 1½ ft.

5422—Pudica. ¼-oz., 25c; Pkt., 10c.

MIMULUS A

5423—Moschatus (Musk Plant) Muskscented leaves, tiny yellow flowers. Pkt., 25c.

5424—Tigrinus (Monkey Flower). 10 in., Queen's Prize, Single Mixed. Dwarf bushy plants, with large Gloxinia-like flowers, ranging in color through white, pale yellow, golden, flesh, crimson and maroon; handsomely blotched and striped. Does best in partial shade. Pkt. 10c.

NASTURTIUM Annual**Dwarf Tom Thumb—Tropaeolum Nanum**

These have neat, compact habit and attractive foliage; they bloom in two months from sowing, and most profusely the whole season; 1 ft.

5425—Beanty. Yellow and scarlet. Pkt., 10c.

5426—Chameleon. Mottled crimson, bronze and yellow; very fine. Pkt., 10c.

5427—Empress of India. Deep crimson; fine dark foliage. Pkt., 10c.

5428—Golden Cloth. Golden yellow leaves; scarlet flowers. Pkt., 10c.

5429—King of Tom Thumbs. Scarlet; fine color. Pkt., 10c.

5430—King Theodore. Black, velvety; darkest of all. Pkt., 10c.

5431—Lady Bird. (Spencer) Golden yellow, spotted red brown; foliage light green. Pkt., 10c.

5433—Mixed, Spotted Varieties. Spotted, blotched and marbled sorts. Pkt., 10c.

5434—Mixed, All Sorts. Oz., 15c; ¼-lb., 50c; ½-lb., 90c; lb., \$1.75.

Tall or Climbing—Tropaeolum Majus. Besides their ordinary garden use for trailing over fences, trellises, stone walls, etc., these can also be grown as pot plants for wintering, as screens, or as trailers for hanging baskets and vases; 8 to 12 ft.

5435—Dark Crimson. Pkt., 10c.

5436—Jupiter. Giant flowered; beautiful golden yellow. Pkt., 10c.

5438—King Theodore. Black. Pkt., 10c.

5439—Scarlet. Pkt., 10c.

5440—Schulzi. Darkest leaved scarlet. Pkt., 10c.

5441—Fine Mixed. Pkt., 10c; oz., 15c; ¼-lb., 50c; ½-lb., 85c; lb., \$1.50.

LOBB'S CLIMBING—Tropaeolum Lobbianum

This class is remarkable for the intensely brilliant colors of its flowers, which are a trifle smaller than those of other sorts. In moderately rich soil they climb high and bloom brilliantly. Average height, 6 ft.

5442—Finest Mixture. Oz., 15c; Pkt., 10c; ¼-lb., 50c.



NEMESIA—1 ft. hA

Free blooming dwarf bushes for pot culture and open borders. Sow in spring under glass, and transplant; or sow out of doors in May, in patches, where they are intended to flower.

5443—Large Flowered Mixed. 1 ft. Is the finest strain of the most popular flower, both for size and massive build of the individual flowers, also for the richness and variety of colors. Pkt., 10c.

5444—Blue Gem. One of the best blue annuals for bedding; 7 inches. Pkt., 10c.

NEMOPHILA A

Very pretty, dwarf-growing hardy annuals of easy culture; continuous bloomers; cup-shaped flowers of brightest colors. Good in pots, edgings, rockeries or beds; moist soil and partial shade is favorable for them. 1 ft.

5445—Finest Mixed. Pkt., 10c; oz., 50c.

NICOTIANA

(Sweet Scented Tobacco Plant) 2 ft. A

One of the easiest annuals to raise and one of the most effective. The blossoms in shape are not unlike a Petunia blossom, but with a longer tube. The flowers open toward evening and emit a powerful perfume.

5446—Affinis Tuberosa-flowered Tobacco. Most showy and profuse bloomer, giving a continuous display of waxy white flowers right through the summer and autumn. They commence to bloom a few weeks from sowing. The plants are of branching, bushy habit, 2 to 3 feet high; carry their flowers in clusters. Delightfully sweet-scented. Sow seed in boxes or pans in the early spring, and protect from frost and cold winds. Plant out as soon as all danger of frost is over. Pkt., 10c.

5447—Affinis Hybrida. Splendid hybrids in blue, red and rose, etc., shades. Pkt., 10c.

5448—Sanderac. A lovely hybrid tobacco of elegant branching habit, and bearing on light, graceful stems great quantities of very beautiful rosy carmine flowers. Pkt., 10c.

5449—Sylvestris, 4 ft. A noble-looking plant of pyramidal habit, with long, tubular pure white flowers, borne in dense panicles, and possessing the merit of remaining fully expanded throughout the day as well as in the evening. Pkt., 10c.

NIGELLA hA

Nigella (Love-in-a-mist, or Devil-in-a-Bush)

Compact growing, free flowery plants with curious looking, showy flowers and finely cut foliage. Colors blue and white. Sow about April and thin to 8 to 10 inches.

5451—Mixed Colors. Pkt., 10c; oz., 35c.

5452—Miss Jekyll. Cornflower blue. Pkt., 10c; oz., 75c.

ORNAMENTAL GRASSES

5453—Ornamental Grasses Mixed. 2 to 5 ft. These are most useful for winter bouquets when combined with everlasting flowers. They are easily grown in any soil. Pkt., 10c.

PASSIFLORA hHP

5478—Coerulea Grandiflora (Passion Flower). 15 ft Southern Beauty. A beautiful vine for greenhouse and window. Few effects are more charming than the Blue Passion Flower covering a greenhouse wall with its rich green foliage and skyblue flowers, followed later by an abundance of handsome fruit. Pkt., 10c.

5479—Mixed, all colors. Pkt., 10c.

PENTSTEMON P

Beautiful herbaceous perennials; very hardy and free flowering; fine for beds and borders or rock gardens; excellent cut flowers.

5480—Sensation. Although this is a perennial it can easily be grown as an annual. If sown in heat in February or March, they will flower freely the first year, producing large spikes of handsome flowers. Often two inches across and in the most brilliant and varied colors. Pkt., 25c.

5481—Large Flowering Newest Hybrids. A splendid assortment of colors. Pkt., 15c.

PETUNIA hhA

PETUNIA (Hybrida)—During the whole season it is covered with large, showy blossoms, which are always bright and fresh, in spite of heat and drought. The flowers are of an almost infinite variety of colors and markings, and quite as varied in form; large and small, fringed and plain, double and single. Hardy Annual Sow seeds very thinly indoors under glass. Care should be taken to save the weaker seedling as they produce the finest flowers. Transplant to garden when soil is warm. Height 1 to 1½ feet.

5482—Single Choicest Mixed. Pkt., 15c.

5483—Double Choicest Mixed. Pkt. 35c.

5484—Single Fringed. Finest Mixed. Pkt., 25c.

5486—Giants of California. Choicest Mixed. Pkt., 25c.

SINGLE BEDDING VARIETIES

Smaller flowered sorts, found most valuable for beds and masses. 1 ft.

5487—Countess of Ellesmere. Dark rose, with fine white throat. Pkt., 10c.

5488—Howard's Star. Rich crimson; distinct white star in center; very showy and attractive. Pkt., 10c.

5489—Rosy Morn. Bright, rosy pink, with white throat; very charming, compact, and free flowering; for bedding. Pkt., 10c.

5490—General Dodds. The large and well-shaped crimson flowers are borne continuously throughout summer and fall. Pkt., 10c.

Dwarf Petunias. This beautiful type is particularly well suited for solid beds or borders. The plants form neat round bushes which are literally covered with thousands of flowers, beginning to bloom in June and lasting until frost.

5492—Snowball. Neat and compact bushes of bright green leaves covered with a mass of small white star-shaped flowers. Snowball looks particularly well in solid beds. Pkt., 10c.

5493—Inimitable. The white flowers are attractively starred and striped with contrasting rich crimson. Pkt. 10c.

5494—Violacea, (New) deep violet, fine. Pkt., 10c.

5495—Rose of Heaven. Very dwarf, rose pink. Pkt., 10c.

5496—Balcony Petunias. Mixed. Pkt., 10c.

5497—Balcony Blue. Pkt., 10c.

PERILLA hhA

An ornamental-leaved, half-hardy annual; for ribbon-gardening and beds; resembles the coleus, 1½ to 2 ft.

5498—Nankinensis. Dark, bronzy purple foliage. Pkt., 10c.

POOLE'S GIANT PANSIES

5454—Poole's International Mixture. This is and always has been, literally, a World's Best Mixture. Composed of well-rounded, perfect shaped flowers of a wide range of coloring and marketings, must have thick velvety petals with fluted or semi-double edges, and must stand erect on good stiff stems with a good healthy growth of plant. While every solid color is represented, there are also all the possible variations of each one of these. Pkt., 25c.

5456—Odier, Cassier and Bugnot, Mixed. An extremely rich, large flowered mixture. Pkt., 25c.

5457—Non Plus Ultra. A very rich mixture, largely made up of Cassier and Trimardeau varieties. Pkt., 15c.

5458—Azure-Blue. Very fine color. Pkt., 10c.

5459—Black. (Faust; King of the Blacks) Almost coal black. Pkt., 10c.

5460—Bronze. Golden bronze. Pkt., 10c.

5461—Cardinal. Brilliant red; very fine. Pkt., 25c.

5462—Emperor William. Splendid; ultramarine blue; very showy. Pkt., 10c.

5463—Peacock. Large, peacock-blue flowers, edged with white. Pkt., 15c.

5464—Snow Queen. (Candissima) Pure satiny white. Pkt., 10c.

5465—Yellow Maroon Eye. Large flowers of distinct coloring. Pkt., 10c.

5466—Trimardeau Giant. Mixed. Pkt., 15c.

5467—Fine Mixed. Pkt., 10c.

5468—Masterpiece (New Giant Curled or Spencer Pansies). The petals are crimped and curled so the flowers appear double. Pkt., 25c; $\frac{1}{8}$ -oz., 70c.

MIXED COLORS

5469—Mastodon. Private stock mixed. Pkt., 25c.

5470—Giant Adonis. Light blue, with dark blue face. Pkt., 20c.

5471—Golden Gem. Pure yellow. Pkt., 10c.

5472—Gold Margined. Pkt., 10c.

5473—Dark Blue Early Flowering Giant. Pkt., 15c.

5474—Fancy Striped. Elegantly striped, splashed, and mottled, a very curious combination of colors that can-



not fail to elicit astonishment. The flowers are large and freely produced and the habit of the plant dwarf and compact. Pkt., 15c.

5475—Violet Blue. A very pleasing shade. Pkt., 15c; $\frac{1}{8}$ -oz., 40c.

5476—Madam Perret. A splendid giant-flowered strain comprising all shades of red from light rose to dark purple, some of them finely striped. Pkt., 15c.

5477—Snow Storm. Early flowering giant. Pkt., 15c.

PHLOX DRUMMONDI (Flame Flower) A

The hardy annual Phloxes are dazzling in effect, particularly so when sown in masses or ribbon beds of contrasting colors. Few flowers are so easy to grow from seed, so pretty and compact in habit, so quick to bloom, or give such a brilliant display of color for so little cost and care. There are few desirable colors beyond their range, and if given a good soil and plenty of water, they will furnish a long supply of delicate flowers. For pot culture dwarf varieties are valuable and as an undergrowth for tall, bare stemmed plants they are also valuable. The first sowing should be made as soon as the frost is out of the ground in spring, later ones in May, either where the plants are to bloom, or in a seed-bed, as the Phlox transplants readily. In transplanting set the taller kinds about a foot apart; if planted too thickly they suffer from mildew. Cutting away the flowers and seed pods makes the plants more bushy and compact, and lengthens their blooming time. Average height, 1 ft.

5499—Grandiflora Alba. Pure white flowers borne in profusion all summer. Pkt., 10c.

5500—Chamois-Rose. A soft shade. Pkt., 10c.

5501—Isabelina. Yellow. Pkt., 10c.

5502—Kermesina Splendens. Vivid crimson; extra large flowers. Pkt., 10c.

5503—Stellata Splendens. Star-like; crimson. Pkt., 10c.

5504—Mixed. Splendid large flowering sorts. Pkt., 10c; oz., \$2.

5505—Semi-Double Varieties Mixed. Pkt., 15c.

5506—Nana Compacta Dwarf. 8 in. These are much superior to the other Phloxes for ribbon bedding or borders. The plants grow very symmetrical in neat, little bushes, covered with flowers during the whole summer and fall. Pkt., 10c.

5507—Grandiflora nana compacta. Mixed Pkt., 10c; $\frac{1}{4}$ -oz., 1.00.

STAR PHLOX

5508—Cuspidata. Star-shaped; many colors. Pkt., 10c.

PERENNIAL PHLOX

This hardy sort makes bushes about 3 feet high bearing large heads of finely colored flowers.

5509—Decussata Mixed. Pkt., 10c.

WE PAY POSTAGE ON ALL FLOWER SEED

PINKS (Dianthus)

Nothing is prettier or more satisfactory than old-fashioned Japanese Pinks. They should be in every garden. They are hardy, about 1 foot high, and bear beautifully colored single and double blossoms in profusion all summer. Sow seed early in boxes and transplant, or sow in rows where the plants are to remain and thin. See also Carnation.

5510—Chinensis Type. Single Mixed. Pkt., 10c. ¼-oz., 25c.

5511—Double Mixed. Pkt., 10c; ¼-oz., 35c.

HEDDEWIGII A

5512—Crimson Belle. Single deep crimson. Pkt., 10c; ¼-oz., 25c.

5513—Eastern Queen. Single rose. Pkt., 10c; ¼-oz., 25c.

5515—Fireball. Double deep scarlet. Pkt., 15c; ¼-oz., 60c.

5516—Salmon King. Double salmon. Pkt., 15c; ¼-oz., 65c.

5517—Snowball. Double white. Pkt., 15c; ¼-oz., 65c.

5518—Finest Double Mixed. Pkt., 10c; ¼-oz., 30c.

5519—Finest Single Mixed. Pkt., 10c; ¼-oz., 25c.

5520—Double Imperial Mixed. Pkt., 10c; ¼-oz., 25c.

5521—Plumarius, Double Mixed (Clove pink) Pkt., 10c; ¼-oz., 25c.

5522—Laciniatus Double Mixed. Fringed. Pkt., 10c; ¼-oz., 25c.

POPPIES

Poppies are noted for their satiny flowers of silk-like texture, in many brilliant color combinations. The foliage is delicate and the blossoms are airily poised on slender stems. If the flowers are gathered early in the morning when the dew is on them, they will remain fresh in water all day. Plant the seed in succession two weeks apart for a continuous bloom all summer. Mix seed with sand before sowing so as to distribute the seed thinly and evenly.

DOUBLE ANNUAL POPPIES

5523—Flanders Poppy. Vivid scarlet-red. This flower has in the minds of men been associated for over two hundred years with the battlefields of Flanders. Was the first official flower of the American Legion. Pkt., 10c; ½-oz., 25c; 1 oz., 40c.

5524—Tulip (Glaucum) Large tulip-shaped flowers of dazzling scarlet; not unlike a Scarlet von Thol Tulip. Pkt., 10c; ¼-oz., 25c.

5525—Shirley Mixed. Beautiful shades in delicate shades of rose, apricot, salmon-pink, and blush to glowing crimson with a sprinkling of blues. Pkt., 10c; oz., 30c.

5526—Eldorado. 2 ft. The flowers are large, single, semi-double and double, and contain magnificent shades of soft salmon, orange, orange-scarlet, pink, rose and white, without any dark markings whatever. The substance of the petals in some of the lighter shades is as delicate as China silk. Pkt., 10c; ¼-oz., 25c.

5527—Eldorado Salmon Shades. 2 ft. The introducer made a selection of these most popular shades and these will especially appeal to those admiring pastel shades in flowers. Pkt., 15c; ¼-oz., 25c.

5528—American Flag. Flowers very large, snow white, scarlet bordered. Pkt., 10c; ¼-oz., 25c.

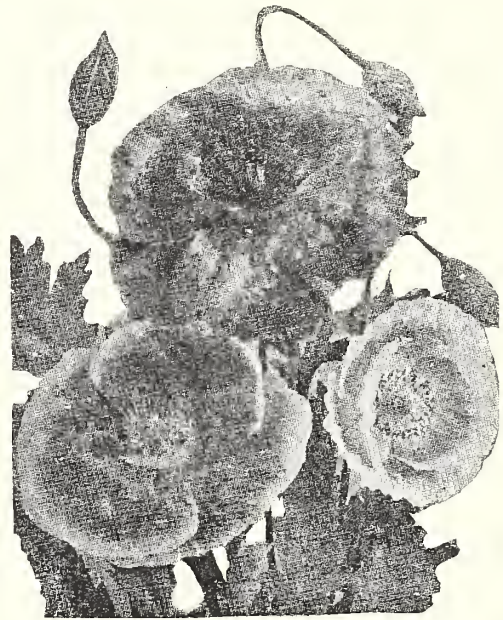
5529—Double Mixed. Many kinds and colors. Pkt., 10c; ¼-oz., 25c.

5530—Double Blood Red. Pkt., 10c; ¼-oz., 25c.

5530A—Double Bright Rose. Pkt., 10; ¼-oz., 25c.

5531—Double Paeony Flowered. Finest mixed. Pkt., 10c; ¼-oz., 25c.

5532—Single Shirley. American Legion, brilliant orange scarlet. Pkt., 10c; oz., 50c.



PAPAYER (Poppy) Perennial

5533—Nudicaule (Iceland Poppy) 15 in. Mixed. Elegant free flowering plants bearing flowers in abundance all summer. Pkt., 10c; ½-oz., 50c.

5534—Brateatum. 3 ft. Scarlet. Pkt., 10c; ¼-oz., 50c.

ORIENTALE (Oriental Poppy)

For gorgeous coloring the Oriental Poppies have few rivals among hardy plants. They produce magnificent effect in shrubberies and herbaceous borders, while for cutting they are invaluable. 3 ft.

5535—Annual Oriental. A new strain of the Oriental Poppy, which will bloom the first year if sown early. Pkt., 25c.

5536—Oriental Red. Very striking color. Pkt., 10c. Perennial.

PORTULACA (Rose Moss) A

Brilliant dwarf annuals, only six inches high, luxuriating in warm situations and blooming profusely from early summer to autumn. For low beds and masses of color from spring until frost, they are indispensable; colors range through innumerable shades of red, yellow, pink, white, striped, etc.

5537—Single Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 40c.

5538—Double Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., \$1.00.

PRIMROSE (Evening Primrose) hA

The *Oenothera* or Evening Primrose blooms all summer very freely; the bright, poppy-like flowers open early every evening and last well into the next day; of the easiest culture in sunny situations.

5539—*Oenothera*, Mixed Annual Varieties. Pkt., 10c; oz., 25c.

PRIMULA (Chinese Primrose)

Primula or Chinese Primrose, stands in the first rank among greenhouse plants, and is fine for winter and spring blooming. It is free-flowering and is especially valuable for cut-flowers and for house and window culture. A cool place suits it best. Sow seeds in drills in a light, rich soil, in shallow boxes, at any time from the middle of March to the end of May; the earliest sown seed will naturally produce the earliest bloom. Cover the seed about $\frac{1}{8}$ inch and press the soil on them with a board or the bottom of a pot. Water moderately; avoid forcing the seed. The plants must be well ventilated, well watered, and slightly shaded. Average height, 9 inches.

5540—*Malacoides*. 10 in. The flowers are of a delicate shade of lavender, produced in whorls on tall graceful spikes in great profusion. Pkt., 25c.

5541—*Vulgaris*. Yellow, common English Primrose. Pkt., 15c.

5542—*Auricula*. The Primrose of the Alps. Flowers variously colored, mostly yellow; fragrant. Seed selected from selected strain. Pkt., 15c.

PYRETHRUM A

5543—*Aureum* Golden Feather. 6 in. One of the best plants for edging, grown for its beautiful yellow foliage. Most successfully treated as an annual. Pkt., 10c.

PYRETHRUM ROSEUM (Painted Daisy) P

One of the most valuable of our early summer flowers. Charming color, and wonderful lasting properties as a cut flower; flowers in May and June, and frequently in August and September; in all shades of rose and pink.

5544—Double Mixed. Extra choice, selected seed. Only a small percentage will be double, balance will be semi-double and single in fine variety. Pkt., 25c.

5545—Single Mixed. Pkt., 10c; $\frac{1}{8}$ -oz., 50c.

"PEP"

Produces Prettier Flowers

RHODANTHE hA

Beautiful, delicate-looking Everlasting flowers, much prized for winter bouquets. These half-hardy annuals are also valuable garden plants. Glauous gray foliage. 1 $\frac{1}{2}$ ft.

Annual. The pick of the Australian flora in Everlasting flowers. Immense favorites.

5546—*Maculata*. Bright rose, with dark center. Pkt., 10c.

5547—*Maculata alba*. Large; pure white. Pkt., 10c.

5447A—Finest Mixed. Pkt., 10c.

RUDBECKIA

(Golden Glow—Newnani) Brilliant orange, yellow petals around a large dark center. Useful for borders or a single group. Sow seed in a sheltered location and transplant when a few inches high. Height 4 to 6 feet.

5548—*Fulgida*. Orange yellow, perennial. Pkt., 15c.

5549—Large Flowered Yellow. Pkt., 10c.

SALPIGLOSSIS (Painted Tongue) hA

These showy, half-hardy annuals bear beautiful funnel-shaped flowers having dark veins on a ground which varies from white to crimson, yellow, orange, etc., and intermediate shades. They are easily grown, require a light, rich sandy loam and will respond to liberal treatment. Bloom from late summer until frost. 2 ft.

5554—*Grandiflora*, Extra-Choice, Mixed. A fine assortment of colors. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

**SALPIGLOSSIS**

5555—*Grandiflora superbissima* (Emperor) Mixed. Finest strain of very large flowers. Pkt., 15c; $\frac{1}{4}$ -oz., 50c.

5556—Tall Mixed. Pkt., 10c.

5557—Dwarf Mixed. Pkt., 10c.

5558—*Gloxiniiflora* Mixed. 2 $\frac{1}{2}$ ft. A special selection of the Painted Tube Tongue made by a French hybridizer. Flowers large and fancifully veined in contrasting colors. Pkt., 15c; $\frac{1}{4}$ -oz., 75c.

SALVIA (Flowering Sage) A

Very ornamental; flowers borne in spikes of fiery red or crimson and continue bloom in open ground until after severe frosts. Start in heat and transplant into light soil, one to two feet apart. Excellent for bedding in masses or single planting. Hardy annuals.

5550—Salvia Zurich. New dwarf early. The finest of all dwarf Salvias. Very floriferous. Pkt., 10c.

5551—Bonfire (Clara Bedman.) One of the finest Salvias ever introduced; compact bush about two feet in height and diameter. Its erect spikes of flowers of brilliant scarlet stand clear above the dark green foliage and completely cover the plant. Pkt., 10c.

5552—Splendens, grandiflora, Scarlet. A rich-flow-ered bedder; long spikes. 3 ft. Pkt., 10c.

5553—Ball of Fire. Very dwarf and compact, ball-shaped variety, especially suitable for pot culture. The plants are about 2 feet high to the top of the flower-spikes, and about the same in diameter. Color dull red; large spikes. Pkt., 25c.

SAPONARIA

5559—Vaccaria Rose. 2 ft. In the Parisian flower markets this Saponaria is one of the special favorites. The light graceful sprays of glistening flowers are produced in greatest profusion. It is so valuable for vase decoration that successional sowings should be made. Charming pot plant for greenhouses. Pkt., 10c; oz., 50c.

SCABIOSA (Mourning Bride) A

Commonly known as the Pincushion plant. The flower stems are long and the blossoms keep well in water. The soft shades predominate. When given plenty of room and the seed vessels are kept regularly picked off it will last through the whole summer. Owing to its sweetness the bees are very fond of it and its floral flavors also attract all the most beautiful types of butterflies to the neighborhood.

TALL LARGE FLOWERING DOUBLE

5560—Snowball.

5561—Fiery Scarlet.

5562—Azure Fairy.

5563—Black Prince.

5564—Rose.

Each of above, per pkt., 10c; any 3 pkts. for 25c.

5565—Mixed. The above and others. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

5566—Dwarf Mixed Double. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

PERENNIAL SCABIOSA (Pincushion)

5567—Caucasica. Flowers on long stems; fine for cutting. Pkt., 15c.

SCHIZANTHUS A

This is one of the daintiest of annuals. The seed germinates readily and in a few weeks the plant is a mass of small but bright flowers in a bewildering range of colors, all blotched and marked in contrasting shades. The foliage is delicate and fern like. It may be sown in spring for garden decoration or may be seeded in fall in pots in the conservatory or house for spring blooming.

5568—Grandiflorus Hybrids. A grand strain bearing a profusion of large flowers, all with handsome markings on a white, buff, brilliant rose, rich blue or purple ground. Pkt., 25c.

5569—Wisetonensis. $1\frac{1}{2}$ ft. Profusion of flowers varying from almost white with yellow eye to a brilliant rose with bronze brown center. Pkt., 10c.

5570—Mixed. All colors. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

5571—Rose and Amber Shades Mixed. Pkt., 10c.

SILENE (Catchfly) A

Bright-colored and freeflowering hardy annuals, suitable for rockwork or garden beds and borders, blooming all summer; succeed finely in any light, loamy soil. 1 ft.

5572—Pendula, Red. Pkt., 10c.

5573—Mixed. Pkt., 10c.

SMILAX

(Medeola Asparagoides) gP

5574—A well known greenhouse climber, with small, dark green foliage; of great value in floral work; 8 ft. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

STATICE A

(Sea Lavender) Pretty plants for the summer garden in beds or borders; good for rockwork also; much valued when dried as Everlastings for winter bouquets. 1 to 2 ft.

5596—Sinuata. Blue; very fine. Pkt., 10c.

5597—Sinuata Candidissima. White; fine for edging. Pkt., 10c.

5598—Sinuata Rosea Superba. The statices are becoming more and more popular as gardeners realize the possibilities of these, not only as beautiful garden flowers, but also the keeping qualities which make them a joy in winter bouquet of everlasting flowers. Pkt., 10c.



5599—Sinuata True Blue. A nice blue quite distinct from the blue offered in the general list which is more of a lavender. Pkt., 15c.

5599A—Bondevelli. Bright yellow. Pkt., 10c.

5600—Sinuata, Lavender. Pkt., 10c.

5600A—Choice Mixed. Pkt., 10c.

5601—Russian (Suworowi) 1 ft. Flowers bright rose color; valuable for winter bouquets. Pkt., 15c.

STATICE (Sea Lavender) P

Large spreading panicles of light graceful flowers, much prized for winter decoration; dried.

5601A—Caspia. The multitude of small flowers composed in spikes of a height of 2 to 3 ft. are of a tender lilac color. Seeds, pkt., 10c.

5601B—Latifolia. 2 ft. Dense branching plumes of deep blue flowers. Seeds, pkt., 10c.

SNAPDRAGON (Antirrhinum) P

The Snapdragon is one of our finest perennials, flowering the first year from seed. Its bright-colored, curiously formed flowers always excite interest. The rich spikes are beautiful for cutting, and keep fresh a long time. Flower profusely through summer until frost. For early flowers, sow under glass in February or March, and transplant into beds of warm, dry soil moderately enriched. The Snapdragon is treated as an annual and the seed sown every year. Average height, 2 ft.

TALL, LARGE-FLOWERING VARIETIES

- 5575—Blood-Red. Fine color. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5576—Firefly. Scarlet and white. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5576A—Dark Scarlet. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5577—Garnet. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5578—Nelrose. Silvery pink; very long stems; fine for greenhouse. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5579—Orange Beauty. Very large flowering, lovely orange-scarlet with gold tip. Pkt., 10c;
 5580—Queen Victoria. Pure white. Pkt., 10c.
 5581—Rose. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5582—Venus. Delicate pink, with white throat. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5582A—Scarlet Defiance. Pkt., 15c; $\frac{1}{4}$ -oz., 75c.
 5583—White. Beautiful for cutting. Pkt., 10c.
 5583 $\frac{1}{2}$ —Yellow. A pure, soft color. Pkt., 10c.
 5584—Large-flowered, Mixed. Fine. Pkt., 10c; $\frac{1}{4}$ -oz., 50c.

SEMI-DWARF VARIETIES

Plants of this section make excellent bedders, as they bloom extra profusely and are only about 15 inches high.

- 5585—Cottage Maid. Pale coral-pink, white throat. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5586—Crimson King. Bright crimson; a deeper color than Scarlet King. Pkt., 10c.
 5587—Golden Beauty. Large, sturdy spikes; rich golden yellow. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5588—Queen of the North. Pure white; small-leaved. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5589—Rose Dore. Pretty, self-colored salmon-rose. Pkt., 10c; $\frac{1}{4}$ -oz., 75c.
 5590—Rose Queen. Rich rose. Pkt., 10c.
 5591—Fine Semi-Dwarf Mixed. Pkt., 10c; $\frac{1}{4}$ -oz., 50c.



DWARF LARGE-FLOWERED

A compact strain. Flowers variously colored. This type makes a good pot plant and is invaluable in borders or beds. Height 6 in.

- 5592—Rose. Charming shade of old rose. Pkt., 15c.
 5593—White. Flowers in greatest profusion. Pkt., 15c.
 5594—Finest Mixed. Pkt., 10c.
 5594A—Silver Pink. Pkt., 10c.

NEW SNAPDRAGON

5595—Pink Perfection. A distinct achievement in Antirrhinums. A new PERFECTION type, in the Nanum Grandiflorum group. In habit, this new type may be likened to Perfection Stocks—the plant produces innumerable long perfect spikes. We have cut as many as twenty-four spikes from one plant. The spikes are perfectly balanced; the flowers are a beautiful shade of pink, described as Hermosa Pink, slightly suffused with salmon. We venture to say that this fine Antirrhinum will even exceed in popularity our now famous SILVER PINK. Pkt., 25c.

SUNFLOWER (Helianthus)

Hardy annuals, growing from 3 to 6 feet high. Of the easiest culture and suitable for a stately row or background. Plant when the ground is well warmed, in light or sandy soil.

5620—Argyrophyllus (Texas Silver Queen) Has handsome silvery foliage and a profusion of small, elegant single flowers. 4 ft. Pkt., 10c; $\frac{1}{4}$ -oz., 15c.

5621—Cucumerifolius. Of pyramidal growth; small, bright orange, single flowers. 3 ft. Pkt., 10c; $\frac{1}{4}$ -oz., 20c.

5622—Globe-flowered. Ball-shaped; blooms late. 3 ft. Pkt., 10c; $\frac{1}{4}$ -oz., 15c.

5624—Dwarf Red. Pkt., 10c.

5625—Double California. Dark yellow. 5 ft. Pkt., 10c; $\frac{1}{4}$ -oz., 25c.

5626—Chrysanthemum-flowered. Large, densely double, bright golden-yellow flowers. The plant branches and affords fine, long, stout stems for cutting. This is the best variety in existence. Height, 6 to 8 feet. Pkt., 10c; oz., 35c.

STOCKS (Matthiola) A

Stocks have good habit, fine leaves, beautiful and fragrant flowers, a long season of bloom and adaptability to many conditions of culture. They are unsurpassed for bedding, edging, pot culture and for cutting. For fine early flowers sow under glass in March or April, transplanting the seedling when an inch high into other pots or boxes, or into fine soil spread over some discarded hotbed. In May transfer to garden beds of deep, rich soil, setting the plants a foot apart. Transplanting several times in the early stages of growth tends to make them more dwarf and compact. For late flowers sowings may be made in the open ground in May. If plants that begin to bloom late are carefully potted in the fall they will flower finely all winter in a house that is tolerably cool and moist. Average height, 1 to 1 ½ ft.

Ten Weeks—Half hardy annuals.

Dwarf Large-flowering—Long, splendid spikes; large, double flowers.

5602—Bright Red.

5603—Carmine. Pkt., 10c.

5604—Crimson. Pkt., 10c.

5605—Dark Blue. Beautiful. Pkt., 10c.

5606—Light Blue. Exquisite. Pkt., 10c.

5607—Rose. Very dainty, light color. Pkt., 10c.

5608—Snow-white. Pkt., 10c.

5609—Violet. Pkt., 10c.

5610—Mixed. Pkt., 10c; ¼-oz., 25c.

5610A—Aurora, cream pink. Pkt., 10c.

5610B—Flesh color. Pkt., 10c.

DRESDEN PERPETUAL OR BRANCHING
Cut-and-Come-Again

5611—Princess Alice. White, large spikes; popular variety for cutting. Pkt., 15c.

5612—Creole. Canary yellow. Pkt., 15c.

5613—May Queen. Pale blue. Pkt., 15c.

5614—Mixed. Pkt., 15c; ¼-oz., 50c.

5615—Beauty of Nice. A beautiful flesh pink. Pkt., 15c.

5616—Crimson King. Splendid crimson. Pkt., 15c.

5617—Summer Night. Dark blue. Pkt., 15c.

MATTHIOLA BICORNIS

5618—Evening-scented Stock. 15 in. The flowers in the morning, evening and after a shower emit a delicious perfume perceptible at a considerable distance. 1 oz., 50c; pkt., 10c.

STOKESIA (Cyanca)

5619—(Cornflower Aster) A hardy perennial, 2 feet high, and bearing large blue flowers on long stems. Blooms freely all summer and fall, and is of easy culture, but is hard to start from seed. Pkt., 10c.

SUMMER CYPRESS—See Kochia.

VIRGINIA STOCK (Malcombia Maritima) hA

Early and very free flowering, dwarf hardy annuals of easy culture; bright blossoms; most effective for edgings or beds. 1 ft.

5651—Crimson King. Very fine. Pkt., 10c; ¼-oz., 20c.

SWEET ROCKET HESPERIS P

5627—Spring-flowering, hard herbaceous perennials; fragrant; easily grown in light soil; transplant frequently; very free-blooming. Pkt., 10c; ¼-oz., 30c.

SWEET WILLIAM hB

SWEET WILLIAM—*Dianthus Barbatius*. Remarkably free-flowering plant of brilliant colors, ranging from snow white to darkest crimson and purple, and emitting a very delicate and refreshing fragrance. May be sown in open and thinned to 6 to 8 inches. Height 1 to 1 ½ feet.

5628—Single Mixed. Very beautiful. Pkt., 10c; ½-oz., 50c.

5629—Pink Beauty. Pink. Pkt., 10c; ¼-oz., 35c.

5630—Coppery Red. Pkt., 10c; ¼-oz., 35c.

5631—Pure White. Double. Pkt., 10c; ¼-oz., 35c.

5632—Double Mixed. Pkt., 10c; ½-oz., 35c.

5633—Scarlet Beauty. Pkt., 10c; ¼-oz., 35c.

5634—Double Blood Red. Pkt., 10c; ¼-oz., 35c.

5634A—Dunnetti, crimson. Pkt., 10c.

THUNBERGIA A

THUNBERGIA—Black Eyed Susan. Rapid-growing annual climbers; splendid for trailing over trellises, fences, etc., buff, white, orange, etc., four to six feet high. Grows readily from seed sown in the open.

5635—Mixed Colors. Pkt., 10c; ¼-oz., 45c.

TRITOMA hBp

TRITOMA—Red Hot Poker. Bright showy flowers produced in large spikes of brilliant rich colors. Although hardy, requires some protection through the winter. Will bloom first season from seeds sown indoors very early and planted out as soon as soil is warm. Cut flowers keep a long time. Height 2 to 3 feet.

5636—Uvaria. Dazzling orange red. Pkt., 15c.

5637—Mixed New Hybrids. Strikingly handsome, 2 to 5 ft. Pkt., 15c; ¼-oz., \$1.00.

VALERIANA hB

VALERIANA—Garden Heliotrope. Sweet scented flowers having red or white blooms produced in large heads. Fine border plants, 2 to 3 feet high. Sow seeds early in boxes and transplant to permanent location as soon as large enough to handle. Should have rich soil.

5638—Mixed. Pkt., 10c; ¼-oz., 35c.

VINCA (Madagascar Periwinkle) tP

Handsome, bushy bedding plants, that flower luxuriantly and most profusely all summer from seed sown in February or March in heat; fine also for pot culture in window garden, or greenhouse; 1 to 1 ½ ft.

5648—Mixed. Pkt., 10c; ¼-oz., 50c.

VIOLET (Sweet Scented) P

(Viloe Odorata)

Much prized for spring blooming. All the varieties have great beauty, are very fragrant and quite hardy; 6 in. Violet seed takes a long time to germinate.

5649—Blue. Pkt., 10c; ½-oz., 50c.

5650—The Czar. Very large; dark blue. Pkt., 10c.

WE PAY POSTAGE ON ALL FLOWER SEED

VERBENA A

Very few annuals will make such a gorgeous display during the summer months or furnish more flowers for cutting than the Verbena. Start seed in the house or under glass until three or four inches of growth. They flower in July and continue until destroyed by frost.



5639—Hybrid Candidissima. Large trusses of purest white flowers. Pkt., 10c.

5639A—Hybrida, lavender. Pkt., 10c.

5640—Hybrid Coerulea. Bright blue in various shades. Pkt., 10c.

5640A—Hybrida, dark blue. Pkt., 10c.

5641—Hybrid Defiance. Intensely brilliant scarlet; fine for bedding. Pkt., 10c.

5642—Hybrida Mammoth, Rose Queen. Brilliant rose colored flowers, 1 to 1 ¼ inches across when well grown, produced in magnificent large umbels. Pkt., 10c.

5643—Hybrida. Rose and pink shades. Pkt., 10c.

5644—Hybrida Lucifer. Red. Pkt., 10c.

5645—Lemon Verbena. Every garden should have a few plants of this fragrant favorite. (Usually propagated from cutting, seldom from seed.) Pkt., 15c.

5646—Luminosa. A new color added to our group of Grandiflora Verbenas. Gigantic blooms of luminous flame pink toning to softer shades of salmon, flesh and coral, giving the whole a most beautiful and almost indescribable color that must be seen to be appreciated. Pkt., 25c.

5647—Hybrida Mammoth Mixed. Pkt., 10c; ¼-oz., 50c.

VIOLA CORNUTA (Tufted Pansies)

Though the flowers are not as large as the regular pansies, they bloom so freely that many people consider them superior where a mass of color is desired. The plants bloom for a long period and the colors are particularly clear and distinct. The flowers are light and graceful, and not so stiff as those of the regular pansy.

5655—Admiration. Violet blue flowers. Pkt., 10c.

5656—Lutea Splendens. Bright yellow. Pkt., 10c.

5657—Improved Scotch Pansies. Produces flowers with "faces," the colors range from pale lavender to deep rich purple, many charming intermediate shades. Pkt., 10c.

ZEA (Rainbow Corn)

5647A—Japonica Quadricolor Perfects—4 ft. This charming grass forms an object of great beauty in mixed bed and borders or isolated in groups on lawns, in subtropical gardens, etc.; it thrives in rich light warm soils. The leaves are striped yellow, green, rose and dark red. Pkt., 10c.

WALL FLOWER (Cheranthus Cheri) hhP

Produces spikes of beautiful, exceedingly fragrant flowers. Half hardy perennials.

5652—Single Mixed. Large flowering. Pkt., 10c; ¼-oz., 20c.

5653—Annal Mixed. Pkt., 10c.

5654—Double Mixed. Pkt., 15c; ½-oz., 50c.

WILD FLOWER GARDEN

5673—Wild Flower Garden. Pkt., 5c; oz., 35c.

WILD CUCUMBER A

5302—Echinoystis Lobata. A rapid growing climber. Very good for covering old fences or trellises. Hardy annual. Pkt., 10c; oz., 25c; ¼ lbs., 75c.

XERANTHEMUM A

This well-known hardy annual is one of the oldest and prettiest of the Everlasting flowers, and in winter bouquets retain their color and form for years. Fine for beds and borders; in bloom all the season until frost. 1 ½ to 2 ft.

5672—Double Mixed. Pkt., 10c; ¼-oz., 25c.

WE PAY POSTAGE ON ALL FLOWER SEED

DAHLIA FLOWERED ZINNIA

ZINNIAS—The New Dahlia Flowered. This is a new and distinct race of Zinnia, which will greatly increase the popularity of this flower. The plants of this new race are very sturdy and produce many flowers with stout stems. The flowers in full bloom often measure four inches in depth and six to eight inches in diameter. In general appearance they compare favorably with the Show Dahlias. Easily grown from seed sown in the open and thinned to one foot apart.

5658—Exquisite. Color light rose with center a deep rose. (Tyrian Rose) Pkt., 25c.

5659—Old Rose. This is adequately described by its name, as it is of the real Old Rose shade. Pkt., 25c.

5660—Golden State. A very rich orange yellow. Pkt., 25c.

5661—Crimson Monarch. By far the largest and best of the red shades. Flowers often eight inches in diameter. Pkt., 25c.

5662—Dream. A fine, deep lavender, turning to purple. Pkt., 25c.

5663—Polar Bear. A very large pure white, the best white yet seen in Zinnias. True Dahlia form. Pkt., 25c.

5664—Buttercup. An immense deep creamy yellow. Pkt., 25c.

5665—Oriole. We consider this the most beautiful of its class. It is an immense orange and gold bicolor, changing slightly as it ages. Pkt., 25c.

5666—Mixed. All colors. Dahlia flowered. Pkt., 15c; ¼-oz., \$1.00.

5667—Grandiflora Robusta. Double, giants, apricot yellow. Deep flesh, golden yellow, rose king, salmon, shrimp pink, white. All colors mixed. Pkt., 10c; oz., \$1.25.

5668—Pumila, Dwarf Double. The best bedding variety. Pkt., 10c; 1 oz., 85c.

5669—Pompon, Mixed. Small globe-shaped flowers. Pkt., 10c.

5670—Picotee Type. The flowers, which are not quite as large as the Double Giants, are very effective in appearance, as the edges of the petals are all well marked with a distinct color to the body of the flower, making them very attractive as bedders and cut flowers. Pkt., 15c; ¼-oz., 50c.



5671—Victory Quilled. All colors mixed. Pkt., 15c; ¼-oz., 50c.

5671A—Liliput Double 12-in.—The plants form handsome little bushes and fairly bristle with tiny, short-stemmed, very double flowers hardly exceeding a daisy flower in size. They are very pretty plants bloom all summer until late in the fall. Pkt., 10c.

POPULAR ANNUAL BEDDING PLANTS

Annual bedding plants are so inexpensive and satisfactory that they should be planted extensively for cut flowers in the home as well as for garden effects. They also make splendid displays in tubs and porch boxes.

We have an early delivery of fine large plants that can be set as soon as weather permits and with little care will bloom freely throughout the season. Prices are per dozen, f. o. b. Tacoma.

Alyssum -----	\$0.50	Clarkia -----	.50	Larkspur -----	.50	Pinks -----	.50
Asters -----	.50	Cosmos -----	.50	Lobelia -----	.50	Salpiglossis -----	.50
Carnations -----	1.00	English Daisies -----	.50	Marigold -----	.50	Salvia -----	\$0.70
Calliopsis -----	.50	Forget-Me-Not -----	.50	Mignonette -----	\$0.50	Stocks -----	.50
Candytuft -----	.50	Geraniums -----	\$3.50	Petunia -----	.50	Verbena -----	.50
Centaurea -----	\$0.50	Heliotrope -----	.75	Phlox -----	.50	Zinnias -----	.60

Plant Annuals in the bulb beds. After the bulbs are through blooming they should be allowed to grow until late summer, and the beds can be made very attractive with annual flowering plants without disturbing the bulbs. Forget-me-nots, Petunias, Pinks, Poppies, Verbenas and Candytuft are among the best.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

CLOVER and ALFALFA SEEDS

ALFALFA OR LUCERNE CLOVER

Alfalfa should be cut for hay when the shoots of the next crop appear at the base of the plants. The hay is especially valuable for dairy cows. As soon as cut it immediately commences to grow and during the hottest and driest weather, when other grasses are parched and withered, it remains fresh and green and grows as rapidly as ever. On the low lands it is not an un-

Dry Land Alfalfa—Dry land Alfalfa will produce large, profitable crops of hay and excellent pasture on high, dry land and is recommended for the hills and plateaus where irrigation is impossible. It comes from the highest, driest alfalfa sections, and is very superior seed. Price per lb., 28c.

Price for quantity on Application.

usual thing to harvest five or six crops of hay from the same field in one season without irrigation, and the same result is obtained on high, dry lands where irrigation is resorted to. It will not succeed on hard, clayey soils. Its roots, in seeking moisture, penetrate to incredible depths. The seed should be sown in the Spring, after danger from freezing the young plants is over, or in the Fall, early enough to give a good stand before frost.

Grimm Alfalfa is the hardiest Alfalfa known. In trials, at practically every Experiment Station in the West and Northwest, it has headed the list for vigor and hardiness. Being scarce and in big demand the prices are high but the value of Grimm has been demonstrated beyond question and we recommend its trial. Price per lb., 55c.

Price for quantity on Application.

LIVING BACTERIA ^{Legume Inoculation} HUMOGERM SEED INOCULANT

INCREASES CROP PRODUCTION AND GREATLY IMPROVES THE SOIL

Inoculation Cultures for

ALFALFA, CLOVERS, FIELD AND GARDEN PEAS, BEANS AND SWEET PEAS and All other Legumes

Crop and soil experts agree that for best growth, and to put atmospheric nitrogen in the soil, it will pay all farmers to inoculate all legumes, even where they are at present successfully grown. The cost is trivial when compared with the profit it will bring you. Legumes are clovers, peas and beans, alfalfa, soy beans, vetches, and other plants that grow their seeds in a pod. Their roots are the home of bacteria that draw fertility-building nitrogen from the air and store it in swelling on the roots, called nodules. These nodules not only feed nitrogen to the crop they are on, but rot away in the ground and supply valuable nitrogen to the soil for future bumper crops of corn, wheat, cotton, oats, fruits, etc.

HUMOGERM contains many millions of friendly germs selected to produce the largest number of nodules to accumulate and conserve the most nitrogen from the air. Just as scientific breeding makes better cattle, better hogs and better seeds, so the scientific selection of these cultures makes them superior to the natural germs in the

soil.

These cultures come to you not on common, ordinary soil, but on humus carefully prepared by special process, finely pulverized, so that these millions of helpful bacteria in the best possible condition are to be supplied for every seed you want inoculated.

You are not required to use all of can at one time. Cans open easily, without cutting; you may use part one day, replace lid, use balance any time during guaranty period stamped on can.

A bushel unit will inoculate 1 bu. of legume seed, any variety; if planting more than one bushel per acre, a bushel unit will inoculate the greater amount of seed to be planted on an acre. Simply pour it on the seed, mix, and plant in usual way. Directions on every container.

Prices: 2½-bu. size (will treat 2½ bu. seed), \$2.25; 1 bu. \$1, ½ bu. 60c., ¼ bu. 35c. Garden Size, will inoculate any amount up to 15 lbs. of peas, beans or sweet peas, 25c.

ALSIKE OR SWEDISH CLOVER

(Trifolium Hybridum.)

A perfectly hardy perennial variety which is rapidly growing in popular favor. Excellent for hay and pasture. Valuable for bees. Resists both drought and extreme moisture. The hay of this variety is greatly preferred by some to that of Red Clover, for the reason that it is generally finer, brighter and not so dusty, making it better for horses. Per lb., 35c.

Price for quantity on Application.

CRIMSON OR SCARLET CLOVER

(Trifolium incarnatum)

Highly recommended for pasture and fertilizing purposes. A thrifty annual, growing 20 to 30 inches high. Germinates quickly, grows rapidly, stools abundantly. Cut for hay when in full bloom. Planted in the Fall can be plowed under after blooming in the Spring, followed with barley or potatoes. Per lb. 20c.

Price for quantity on Application.

MEDIUM RED CLOVER

(Trifolium pratense)

The standard Clover for all purposes, hardy, succeeds well on any good soil. Makes superior hay—especially mixed with Timothy—either for dairy cows or for general use. Per lb., 37c. Write for quantity prices.

MAMMOTH RED CLOVER

Mammoth Red Clover. Grows very large and is used almost exclusively for plowing under for manure. Also makes excellent pasture of high dry hills and knolls in this vicinity when mixed with Orchard Grass. Per lb., 40c. Write for quantity prices.

HUBAM CLOVER

Hubam Clover (Annual Sweet Clover) An annual white blossom sweet clover, very similar to Melilotus Alba. A rapid growing clover, ready for cutting four months after seeding. Makes an ideal crop for turning under or soiling in orchards. Bee men are finding it ideal for bee pasture, it being available the first season. Good stock pasture. Seed 20 lbs. per acre. Per lb., 55c.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

CLOVERS—Continued

WHITE DUTCH CLOVER

White Clover (*Trifolium Repens*) Used largely in lawns and permanent pasture mixtures. Accommodates itself to a great variety of soils. High grade, clean seed is very scarce and high this year; beware of low-priced seed this season. For lawns always buy our Extra Fancy Seed, which is the purest high quality seed obtainable, and the true dwarf, hardy variety. Per lb., .65c.

SWEET CLOVER (*Melilotus Alba*)

Sweet clover is used as either a feed crop or as a fertilizer to plow under to improve the soil and increase the crop to follow. It grows fast and is easy to start.

Grows luxuriantly on good soils, but it will also grow and thrive on thin, sandy soil, hardpan, gumbo, rocky upland, clay and alkali land.

Sweet clover lives two years. It makes large, rapid

growth the first season and can be cut for hay or pastured the last half of the summer, but does not bloom or bear seed. The second year it blooms, bears seeds and dies. Will make two crops of hay or a crop of hay and one of seed the second year. Can be plowed under either the first or second year, but to get the full value in humus the second season is better on account of the large roots that penetrate the lower layers of soil, thereby loosening it up and adding much humus and more nitrogen.

Sown very early in the spring. It does well sown either alone or with a nurse crop of small grain. Use 15 to 20 pounds of seed per acre.

Sweet clover makes excellent pasture for horses, cattle, sheep, hogs or chickens. A very early and continuous cropper. Price per lb., 20c; Write for quantity price.

GRASS SEEDS

BROMUS INERMIS

On account of its strong perennial character, and its unusual drought-resisting powers, is the best grass we have for the semi-arid regions of the Northwest. It grows luxuriantly, is freely eaten in either the dry or green state by cattle, and yields enormously, making the best of hay for horses or cattle. Per lb., 27c.

MESQUITE

(*Holcus Lanatas*) It is usually sown on virgin soil, without cultivation, after the ground has been burned over. Sow about 35 pounds to the acre. Chaffseed Fancy Hulled Seed; 15 lbs., to acre. 23c per lb. Write for prices in quantities.

CRESTED DOG'S TAIL

Crested Dog's Tail (*Cynosurus Cristatus*) Should enter in moderate quantity in permanent pasture and lawn mixtures. It does well in the shade, roots deeply, is stoloniferous and perennial. Valuable in mixture for lawns, putting greens and for pasture. If sown alone 30 lbs. should be used per acre. Lb., 70c.

CANADIAN BLUE GRASS

(*Poa Compressa*)

Resembles somewhat the Kentucky Blue Grass, but is shorter and more slender. It is grown very extensively in Canada and some parts of the United States. It will thrive even on hard clay soils, where there is not quite enough lime and fertility for Kentucky Blue Grass. It holds its color and freshness until snow comes. Canadian Blue Grass does not thrive when planted with Clover. Red Top and Orchard Grass are the best for mixing with it to grow on inferior soils. On good land it becomes tall enough for hay and as it shrinks very little in drying, the hay is heavy for its bulk. One to two feet high. Sow 30 lbs. of seed to the acre. Per lb., 55c.

"CREEPING BENT GRASS"

The long creeping stems and spreading habit of this splendid grass make it ideal for Putting Greens; it makes a lasting turf that withstands hard usage. The leaves are fine and it develops a dense growth, making it valuable for bottom lands and slightly sandy soil. Makes excellent hay and splendid pastures. (14 lbs. to bush.) Sow in Fall or Spring, 3 lbs. per 1000 sq. ft. Excellent for lawns. Per lb., \$1.50.

Price for quantity on Application.

ENGLISH RYE GRASS

(*Lolium perenne*) A most valuable grass for both pasture and meadows. It thrives in a cool and moist climate, adapting itself to a great many different kinds of soil. A strong and vigorous grower, curing into a fine hay of sweet flavor. Much relished by cattle and horses. 40 lbs., per acre.

For Lawns—This is used and recommended by many gardeners. If sown thickly it makes a fine lawn, and for large grounds and parks it is very successful. Per lb., 15c. Write for prices in quantities.

HARD FESCUE

(*Festuca Duriuscula*) Fine, rather dwarf, justly noted for its drought resisting qualities. Valuable as a pasture for sheep. Sow 20 pounds per acre. Per lb., 37c.

Price for quantity on Application.

MEADOW FESCUE OR ENGLISH BLUE GRASS

(*Festuca Pratensis*) Especially suited for permanent pasture and is also fine for hay. Grows two to three feet high but not in tufts like Orchard Grass. The hay is very nutritious and cattle thrive on it whether dry or green. Succeeds even in poor soil, and as the roots penetrate deep, from 12 to 15 inches, it takes extremely dry weather to affect it. As a fertilizer it has valuable properties. It will endure severe freezing and its use is becoming more widespread each year. 24 lbs. are sown to the acre. Per lb., 28c.

RED OR CREEPING FESCUE

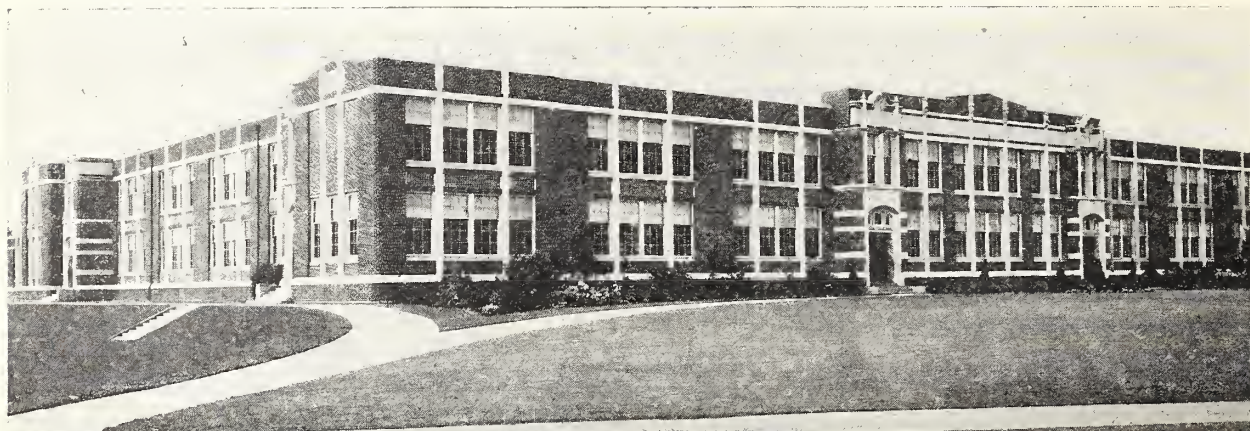
(*Festuca Rubra*) A creeping-rooted variety forming a close and durable turf and particularly suited for dry, sandy soils. Resists drought and thrives on very poor soils, gravelly banks and exposed hillsides. Valuable both for shady lawns and for golf courses. 30 lbs to the acre. Per lb., 50c. Write for prices in quantities.

SHEEP FESCUE

(*Festuca Ovina*) Grows freely in high, dry and open pastures. Its chief merit is for sheep pasture. Thirty five pounds to the acre. Per lb., 37c. Write for prices in quantities.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

GRASS SEEDS



The above is an actual photograph showing the new Jason Lee Intermediate High School, one of the five new Intermediate High Schools completed in the last two years. The lawn was seeded according to our

specifications, one pound Pt. Defiance Lawn Grass Seed to 200 square feet lawn, under the direction of Mr. Wm. Herdman, Supervisor of landscape work in connection with our public schools.

POINT DEFIANCE LAWN GRASS MIXTURE

To obtain a good Lawn Grass Mixture, it is necessary that the best possible seed of fine grasses be used in the combination, embracing such varieties as are neat, close growth, extreme hardiness, and adapted to produce a quick, permanent sod. Judicious selection of seed, knowledge of the habits, vigor, quality and hardiness of varieties used in the mixture can only be gained by thorough and practical tests under different climatic and soil conditions. After more than 25 years' exper-

ience, we offer, **Point Defiance Lawn Grass Seed Mixture**, composed of a thoroughly balanced combination of various native and foreign fine-leaved, deep-rooting grasses of interweaving habit, that will flourish under varied soil and climatic conditions, and which may be depended upon to produce a beautiful, compact evergreen sod that will resist tramping and hard usage, and at the same time present that handsome, velvety appearance so much desired. Sow one pond to 300 square feet. Price, 60c per lb. Write for quantity prices.

WE MAKE A SPECIALTY OF MIXTURES FOR GOLF LINKS,
PUTTING GREENS AND FAIRWAYS

CHEWING'S FESCUE

(New Zealand Grown)

There is very little difference between this and Red Fescue. Chewing's is in even greater demand for putting greens than the Red Fescue. Best seeded alone when used for greens. It is a perennial with creeping roots and makes a fine turf. Seed, either spring or fall, preferably the last week in August or the first week in September. Does well in sandy soils, and in shade. Lb., 50c. Ask for quantity price.

ITALIAN RYE GRASS

(*Lolium Italicum*) A quick-growing grass, attaining a height of 2½ to 4 feet; very desirable for temporary meadows or pastures (will last from two to six years). Thrives best on soils that are slightly moist, and will even stand considerable overflow. Grows easily and bears an abundance of foliage that makes the best and sweetest hay imaginable. Sow 40 pounds per acre. Per lb., 14c. Write for prices in quantities.

KENTUCKY BLUE GRASS

(*Poa Pratensis*) Fancy or double, extra clean. As this grass takes some time to become established, it is preferably sown in mixtures for pasturage. Is truly perennial and prefers lime soils. As a lawn grass it is the finest there is—spreading habit, even texture, permanent, fine leaf and dark color. For pasture sow 50 lbs., per acre; for lawns, four or five lbs. per 1000 square feet. Lb., 50c.

ORCHARD GRASS

(*Dactylis Glomerata*) One of the most valuable of all the cultivated grasses, blooming with Red Clover, and making with it admirable hay. As a pasture grass it is more productive than any other, and does best under close feeding. Of the greatest value in permanent pasture mixtures; thrives best in moist, shady places, but will withstand drought exceedingly well. Will do well under trees. Valued for hay crop, as it is very nutritious if cut early. Sow 28 pounds per acre. Per lb., 25c. Write for prices in quantities.

RED TOP

Solid Seed (*Agrostis Vulgaris*)

Herd's Grass. Second only to Timothy as hay grass, and better if ground is to be pastured afterwards, for Red Top makes one of the best permanent pastures. Succeeds on all soils, though doing best on moist and even swampy land. A permanent grass and valuable as a lawn grass, giving quick effect. Fancy, free from chaff. Sow 15 lbs. per acre. Lb., 45c.

Price for quantity on Application.

RHODE ISLAND BENT

(*Agrostis Canina*) Resembles Red Top. Makes a close sod; valuable for permanent pastures and meadows. Twenty-eight pounds per acre. For lawns, use 12 to 15 pounds per 50-foot lot. Per lb., \$1.30. Write for prices in larger quantities.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

GRASS SEEDS—Continued**SUDAN GRASS**

It yields from 2 to 8 tons of hay per acre, depending upon whether irrigated or not. Two cuttings are assured and in places four have been taken. The hay is of superior quality and relished by all stock. Cut with a

mower just after full bloom. Plant late in spring after frost is past. If drilled in 36-inch rows, you will require 2 to 4 lbs. of seed; if seeded 18 to 20 inches, 4 to 6 lbs; if broadcast, 15 lbs. Write for prices.

TALL MEADOW OAT GRASS

(Avena Elatior) Often attains a height of three to four feet by the middle of June. Makes splendid hay and thrives on sandy loam, but makes its best growth where there is some clay. Can be fed as a pasture grass,

and will generally bear cutting three times. For mixing with Perennial Rye and Alfalfa for sandy soils it is excellent. Sow about 30 to 40 pounds per acre alone, or half that amount if mixed with the above varieties. Per lb., 30c. Write for prices in quantities.

TIMOTHY

Phleum Pratense) Timothy is the great standard hay grass of this part of the country. Not adapted for pasture, as there is little growth after cutting, and tramping of stock soon destroys it. Not a lawn grass and not

adapted to dry soils; height two to three feet. Will stand extreme cold and yields very heavily. Often sown with red top and red clover. Sow 15 to 20 lbs. Price fluctuates. Lb., 14c. Ask for quantity price.

GRASS SEED MIXTURES FOR MEADOWS AND PASTURES

It is a well-ascertained fact that thicker and more prolonged growth is produced by a mixture of many sort of grasses than by only one or two. For every different kind and condition of soil there are grasses that are especially suitable. Some sorts do best on high ground and in dry weather; others prefer plenty of moisture. Some mature so early and others so late that from the beginning of spring until winter sets in there is no time when one species or another is not at its best. Grass Seed may be sown either early in spring

or in fall, from the first of September to the middle of October; in this latitude the best time to sow meadow Grass Seed is during the late summer and early fall, that being the natural seeding time for grass. This will, of course, not give very much of a crop the following year; the grass will be fine and thick, but rather short, and not a heavy yield. The best meadows are seeded alone, without any "nurse" crop, while if seeded with rye, that crop being the stronger and quicker grower, will monopolize the ground so that it will be another year before much of a crop of grass can be had.

Permanent Meadow Mixture—Wet, Late Land

- 30 lbs. Red Top Grass Seed
- 15 lb. Orchard Grass Seed
- 3 lbs. Tall Meadow Oat Grass Seed.
- 8 lbs. Meadow Fescue
- 25 lbs. English Rye Grass.
- 15 lbs. Timothy
- 3 lbs. Red Clover
- 1 lbs. Alsike

100 lbs. Plant 30 lbs. to 40 lbs. per acre.

Temporary Meadow and Pasture Mixture

For good land, moist but not too wet.

- 20 lbs. English Rye Grass Seed
- 20 lbs. Italian Rye Grass Seed
- 2 lbs. Timothy
- 2 lbs. Red Clover
- 2 lbs. Alsike

Temporary Hay Mixture

- 7 lbs. Red or Alsike Clover or $\frac{1}{2}$ each per acre.
- 5 lbs. Timothy Seed.

Permanent Meadow Mixture—High and Dry Land

- 12 lbs. Red Top Grass Seed
- 8 lbs. Tall Meadow Oat Grass Seed
- 12 lbs. Orchard Grass Seed
- 5 lbs. Hard Fescue
- 15 lbs. Sheep's Fescue
- 30 lbs. Timothy
- 10 lbs. Canada Blue Grass Seed
- 5 lbs. Red Clover Seed
- 3 lbs. Kentucky Blue Grass

100 lbs. Sow 30 to 40 lbs. per acre.

Temporary Dry Land Pasture

- 25 lbs. Orchard Grass Seed
- 5 lbs. Mammoth Clover Seed
- 2 lbs. Alsike Clover.

Permanent Meadow Mixture

On good land, neither too dry nor too wet

- 15 lbs. Red Top Grass Seed.
- 8 lbs. Tall Meadow Oat Grass.
- 8 lbs. Hard Fescue
- 25 lbs. English Rye
- 37 lbs. Timothy
- 5 lbs. Red Clover
- 2 lbs. Alsike Clover

100 lbs. Plant 30 lbs. to 40 lbs. per acre.

Permanent Pasture Mixture

On good land, not too wet or too dry

- 5 lbs. Tall Meadow Oat Grass
- 15 lbs. Red Top Grass.
- 15 lbs. Orchard Grass
- 12 lbs. Sheeps Fescue
- 8 lbs. Hard Fescue
- 23 lbs. English Rye
- 10 lbs. Kentucky Blue Grass
- 7 lbs. Timothy
- 5 lbs. Red Clover.

100 lbs. Sow 30 lbs. to 40 lbs. per acre.

Permanent Pasture Mixture—Dry Land

- 10 lbs. Red Top Grass Seed
 - 8 lbs. Tall Meadow Oat Grass
 - 12 lbs. Orchard Grass
 - 7 lbs. Hard Fescue
 - 12 lbs. Sheeps Fescue
 - 16 lbs. Timothy
 - 20 lbs. English Rye
 - 5 lbs. Red Clover
 - 10 lbs. Canada Blue Grass
- Sow 30 lbs. to 40 lbs. per acre.

BIRD SEED

Not for Planting

- P. S. & I. Co's Best Mixed, per lb., 15c.
- Canary—Best Re-cleaned, per lb., 15c.
- Hemp, per lb., 15c.

- Millet, per lb., 15c.
- Rape, per lb., 15c.
- Cuttle Bone, Large Bone, per oz., 5c.
- Sunflower for Feed, lb., 15c; 10 lb., \$1.25.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

GRAINS AND FIELD SEEDS

BEARDLESS BARLEY

Beardless—The earliest barley known. The straw is about the height of the Common Barley, but better, and will stand up on any land; with good season and land, has produced 80 bushels per acre. Sow as early as you can; frost does not hurt it. Many farmers will not grow Barley on account of the long, harsh beards which are so disagreeable in threshing, although it is a profitable crop. This is beardless, and as easy to grow and handle as oats. It is becoming more popular each season. Per lb., 6c. Write for prices in quantities.

White Hulless, or Bald Barley—A grand barley for stock feeding. Grain plump, heavy and when threshed is hulless, like wheat. A heavy cropper. When grown and cut for hay it produces a magnificent fodder, which is very rich and almost equal to a grain feed. Much relished by horses and stock of all kinds. An excellent hog feed. Per lb., 6c. Write for prices in quantities.

BUCKWHEAT

Buckwheat is a valuable crop that can be easily grown wherever wheat will grow, producing a good yield even on light or poor soil and under favorable conditions is very profitable, being in big demand for milling—and is also the best "Bee pasture."

Sow 36 lbs. per acre in drills, 48 lbs. broadcast.

Japanese—Ripens early—is hardly and yields the largest crops. The grains are extra large, dark brown, very thin hulled and makes the highest grade of flour. Per lb., 8½c. We will gladly quote prices on large quantities.

FLAX SEED

We have splendid lot of selected re-cleaned Western-grown Flax, new crop, large plump seed. Per lb., 15c.

Ground Flax for medicinal uses. Per lb., 15c.

MILLETS

Golden—An improved variety, yielding a larger crop of seed than the Common Millet. It is also taller than the Common, and yields a heavier crop of hay. Per lb., 15c. Write for prices in quantities.

Common—A well-known variety growing from three to four feet high; has broad blades and strong stalks. Per lb., 15c; Write for prices in quantities.

OATS

SWEDISH SELECT

A Splendid Variety; Unequalled in Quality

Swedish Select has long been popular, and a splendid variety for Puget Sound country. It yields very heavy crops, makes a very sturdy growth; the straw is of medium height and is extra large, making it less liable to lodge than any other variety. In quality it is by far the best of any oat that we have tested. It has a large spreading head, and the grain is large, plump, and very heavy. It is one of the very earliest varieties, and on account of its exceptionally fine quality and heavy yield probably the most valuable variety grown in the great oat growing sections in Washington. Price per lb., 5c; Write for Prices in Quantities.

Gray Winter—This Oat is planted extensively throughout the Northwest as a Fall or Winter Oat. Is well and favorably known, being a good yielder, and the Oats are large and plump. Price per lb., 5c. Write for prices in quantities.

CANADIAN FIELD PEAS

Canadian Field Peas—(*Pisum sativum*). These do best in a cool climate, or from plantings made very early in the spring. They are now quite largely planted in the Northern States to make an early crop for hay, to feed in the green state to dairy cattle, and for making ensilage. The seed should be planted as early in spring as the ground can be properly prepared. Where the crop is to be cut for hay or feeding, it is best to sow one bushel of stiff strawed oats and one or one and a half bushels of field peas per acre, putting the seed in with a grain drill or harrowing it after broadcasting, so that it will be covered. When grown in this way, the crop should be cut while the grain of the oats is in the soft or milky stage, at which time the pea vines will be in flower and the whole crop will make a nutritious hay, relished by all kinds of stock when properly cured or made into ensilage. This is an excellent crop also to turn under to enrich the ground; when for this purpose two bushels should be sown to each acre. These can be turned under in June and the land again seeded with the Fall Fetch, and which will be ready to turn under in the spring in time for potato planting or general garden crop. Write for prices in quantities. Per lb., 8c.

Green, or Bluebell—The seed is larger than the Yellow Canadian, and it has a bluish color, but is very similar in all other respects. Per lb., 8c. Write for prices in quantities.

USE HUMOGERM on Peas and Vetch. Get Larger Crops of better quality.

RAPE

Dwarf Essex—One of the best forage plants, producing immense quantities of green feed when grass and other crops are dried up. Highly recommended by Professor Shaw and other eminent authorities. Has yielded ten tons of green forage per acre with a food value double that of green clover. Excellent pasture for all stock, and fine green feed for chickens. Thrives on all soils and is ready for use in six to eight weeks from time of sowing. Also valuable for plowing under. Sow same as turnips from May until September, or sow with grain. Use four pounds per acre in drills, eight pounds broadcast. Lb., 15c. Write for prices in quantities.

SPELTZ

It will grow well and produce immense crops on poor soil. Dry weather seems to have no bad effect on it. After the grain is threshed out, the straw makes good hay. The grain has a hull, something like barley. Sow in the Spring, the same as wheat, at the rate of two bushels per acre. Cut when the grain is past the middle stage of milk, when it will make splendid grain and lots of rich straw hay. Thresh like wheat, only not so closely. Can be fed whole, rolled like barley, or ground. Per lb., 6c; Write for prices in quantities.

IMPORTANT—READ CAREFULLY

Clover, Grass and Field Seeds are subject to market changes, therefore we can not print prices good for any length of time. When ready to buy, write us for special prices, stating quantity wanted, or send in your order at catalog prices. We guarantee that we will give you full value for the money sent, whether the price at the time you order be higher or lower, or if the difference is very great, we will notify you before shipment.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

GRAINS AND FIELD SEEDS

RYE

Spring Rye—True Stock. Spring Rye makes an excellent crop where winter grain has been killed out, or for sowing where a fall crop has not been planted. If desired it can be turned under and made to answer a good purposes in adding to the fertility of the soil. Sow seed same time as other spring grain. Does not grow quite so large straw as Winter Rye, but usually yields well and grain is of fine quality.

We wish to emphasize the fact that we sell the **genuine Spring Rye**, sown in the Spring and harvested the same season. We now offer an extra fine grade. To insure receiving enough for your requirements we advise placing your order early, as we have only a limited quantity. Sow about 1½ bu. per acre. Per lb., 6c. Write for quantity prices.

Rosen Rye—(Winter) This variety was introduced by the Michigan Experiment Station, and produces grain which is considerably larger than other Winter Sorts. The kernels are very plump and heavy. The grains are much larger than a common rye and the yield double and some make it stronger and say three for one. You cannot make a mistake in trying it.

Makes an excellent pasture for pigs, calves and other young stock. It should be sown early in the Fall for this purpose. In the Spring sow about five pounds of Dwarf Essex Rape per acre on the Rye, which may be covered with a harrow without injury to the Rye.

Rye may be pastured very early in the Spring. The Rape will continue the supply of green feed when the Rye disappears. Try a Rye and Rape pasture and thus prove its value. Per lb., 5c. Write for quantity price.

SUNFLOWER

Sunflower, Mammoth Russian—The largest and most productive variety. It is now being grown extensively for silage for cattle and is proving of immense value. The seed is a valuable poultry food and is a great egg producer. It is usually drilled in 36-inch rows with the hills 4 inches apart in the row. In sections where the season is short it should be planted as soon as the soil is in good condition in the Spring. For silage it should be cut when 25 to 30 per cent of the plants are in bloom. In food value it is equal to corn silage and the yield 3 to 4 times as great. It has been demonstrated in many parts of the country that no other known forage plant will produce as great a tonnage of high grade food for livestock. Per lb., 25c. Write for prices in quantities.

You can prevent and control seed and Plant Diseases



SEMESAN

A Mercuric Disfectant

For General Agricultural
Purposes and the Control
of Seed, Plant and Soil
Diseases

Potato Diseases, Smut, Stem and Leaf Diseases
of Wheat, Barley, Oats and Rye. Brown Patch in
Lawns.—Write for free booklet

VETCHES OR TARES

Greatest Forage Plant

Common, or Spring (Vicia Sativa)—One of the best forage plants that can be grown on the Pacific Coast. Often called Fall Vetches. This is a species of the pea, and is grown very extensively. It furnishes an abundance of excellent feed, either green or cut and cured for hay. The seed should be mixed with an equal weight of some variety of wheat, oats or rye having a stiff straw, and the mixture sown at the rate of two bushels per acre. Vetches weigh 70 pounds per bushel. Sow in the Fall or early Spring. Per lb., 10c; Write for prices in quantities.

Sand, or Winter Vetches (Vicia Villosa)—This variety thrives on poor, arid, sandy soils. It is sown either in the Fall or early Spring, and is generally mixed with rye, which serves to support the plants. It grows to a height of three or four feet, and can be cut twice; first, as soon as the bloom appears and afterward for seed. The plant is perfectly hardy and makes a very nutritious food. Per lb., 20c. Write for Prices in Quantities.

SEED WHEAT

Early Baart—Bearded—Spring. This splendid new Spring wheat is fully as early as Marquis, a better yielder and has a large white grain of finest milling quality. In the big wheat sections of Eastern Washington, Early Baart has matured three weeks ahead of Blue Stem, giving a bigger crop and its earliness insures protection against loss from the extreme heat and drouth occurring later. Write for prices, state quantity.

Blue Stem—Spring. The best known and one of the most profitable Spring varieties for the Northwest. Heads are large and well-filled, stools freely. Grain very hard. Although a Spring variety, can be planted as a Fall Wheat in sections where Winters are mild. The Blue Stem of the Pacific Coast has a white grain and smooth chaff, quite unlike the Velvet Chaff and Red grains of the states East of the Rockies. Better results are had with this Wheat East of the Cascade Mountains, as it has a tendency to lodge in the moist sections on the Coast. Price lb., 5½c. Write for Prices in Quantity.

Red Russian—Winter. This is extensively grown in Western Washington, where conditions are favorable. It grows vigorously, maturing late, and gives a heavy yield of both grain and foliage. It is a superior variety for choking out weeds, growing close and luxuriantly. Price lb., 5c; Write for prices in quantities.

COST OF SEED TREATMENT WITH SEMESAN

The cost of treatments with Du Pont Semesan is insignificant, especially in contrast with the results it produces. One pound of Semesan will treat 240 pounds of the average vegetable seed by the dust method or 960 pounds if liquid applications are employed, which means only from ¼c to 1c per pound of seed.

2 ounces-----	\$0.60	1 pound-----	\$ 2.75
4 ounces-----	1.00	5 pounds-----	13.00
8 ounces-----	1.60	25 pounds-----	62.50

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Fertilizer For Every Purpose

Complete Fertilizers, Animal and Chemical Fertilizers

FERTILIZE EVERY CROP

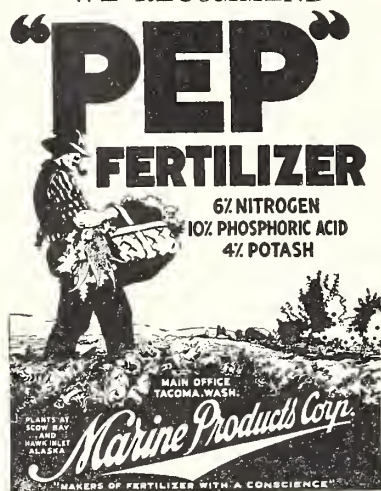
"PEP" Fertilizers--Increase Crops, Maintain Soil Fertility
and Lower Cost of Crop Production---

INGREDIENTS

NITROGEN—Produces the green rank growth—the presence of nitrogen in excess of proper proportion of available phosphoric acid and potash tends to check the formation of flowers and fruits in their season and instead grows leaf and limbs. "PEP" is carefully compounded with just the right proportion of nitrogen.

PHOSPHORIC ACID—Hastens maturity, increases root growth and helps to assimilate the other plant foods. Plants deprived of all phosphorus will not reach maturity. "PEP" is rich in Phosphoric Acid.

WE RECOMMEND



"PEP" 6-10-4

for

Lawns, Flowers and Garden

A complete fertilizer that will promote and maintain healthy and vigorous growth.

Free from Weed Seeds

Price: 5 lbs., 30c; 10 lbs., 55c; 25 lbs., \$1.20; 100 lbs., \$3.75.—Write for prices in larger quantities.

POTASH—Develops the woody parts of stems and fleshy portions of fruits. Its results are manifested ultimately in weight, flavor and keeping qualities.

FERTILIZER is a chain—each link of nitrogen, phosphorus and potash must be strong. A weak link limits crop production. "PEP" is strong in every link.

A 100-Pound Bag of High Grade Commercial Fertilizer will contain more soluble and available plant food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than two tons of manure, and there are no weeds seeds to worry over.

"PEP" 3-8-6

Vegetable and Berry Fertilizer

This is an all round fertilizer which can be used on any crop. We recommend it very highly for market gardens, potatoes, onions and berries. Analysis: Nitrogen 3%. Phosphoric Acid 8%, Potash 6%. Price: 5 lbs., 30c; 10 lbs., 55c; 25 lbs., \$1.00; 100 lbs., \$3.25. Write for prices in larger quantities.

TANKAGE

Ground meat scraps and bone, dessicated in a vacuum, is very rich in phosphoric acid and nitrogen. Use 5 pounds to 100 square feet; per acre, same as General Fertilizer. Price: 5 lbs., 30c; 10 lb., 55c; 25 lbs., \$1.10; 100 lbs., \$3.50.

SHEEP GUANO

Pure pulverized sheep manure is the most nutritious of the animal fertilizers. It promotes steady and rapid growth. We recommend it very highly for use in greenhouses, as well as for garden purposes.

USE—For Flowers, Roses and Lawns, apply at any time—just prior to growing season being preferable—using at the rate of one ounce to the square foot.

Price: 25 lbs., 60c; 100 lbs., \$1.50.

Write for booklet on how to use "Pep" for
Pleasure and Profit

FERTILIZERS—Continued**BONE MEAL**

Fine ground, is one of the best fertilizers. This is the only grade of Bone Meal and is reduced by improved machinery to an even fineness—nothing is added. This is a very valuable enricher of the soil, and one of the most economical at present prices. Price: 10 lbs., 55c; 100 lbs., \$3.25.

NITRATE OF SODA

For immediate results Nitrate of Soda is the very best for stimulating and forcing the growth of plants or any other crop. Use one pound to a ten-quart pail of water. Apply this in small amounts some little distance from the plant. Repeat in from twenty to thirty days. Price: 10 lbs., 50c; 100 lbs., \$4.00.

SUPERPHOSPHATE

This is a concentrated form of phosphoric acid, and it is actually the cheapest form in which to buy phosphoric acid. Our present stock contains 17 to 18 per cent. available phosphoric acid. Price: 10 lbs., 30c; 100 lbs., \$2.00.

MURIATE OF POTASH

We handle the regular commercial grade containing 50% actual Potash. Potash produces better keeping qualities in fruits and vegetables. Price: 25 lbs., \$1.00; 100 lbs., \$3.00.

Write for prices in larger quantities.

SULPHATE OF POTASH

Regular commercial grade 50% Potash and no chlorine. Recommended for potatoes. Price: 25 lbs., \$1.10; 100 lbs., \$3.50.

Write for prices in larger quantities.

HYDRATE LIME

"Lime is one of the necessary elements in plant growth. The sandy soils are made more retentive of moisture and clay soils are made more friable by its use. Lime is an excellent sweetener of the soil and its use destroys many weeds which thrive in a toxic ground." Price: per 50-lb. bag, 80c. Write for prices in larger quantities.

STIM-U-PLANT

PLANT STIMULANT TABLET

Trade Mark Registered U. S. Patent Office

PLANT FOOD IN TAB-**LET FORM**

The most efficient and Scientific method of fertilizing all kinds and conditions of growing plants in home garden, house or farm.

STIM-U-PLANT is a 26 grain tablet with a guaranteed analysis of 11 per cent nitrogen; 12 per cent phosphoric acid and 15 per cent potash.

No other plant food contains anything like as high an analysis as this Stim-U-Plant Tablets are composed of water soluble materials of great feeding power and of known weight and percentage of plant food.

FLORANID
UREA (BASF)

Clean, Odorless, Stainless

It produces more foliage and of a richer color.
It produces large and brilliant flowers, and more blossoms to a plant.
It increases the yield and improves the quality of vegetables and fruits.
It produces early crops, shortening the growing period one to three weeks.
It makes beautiful lawns and puts new life into shrubs and hedges.
It produces a vigorous root system.

**THE FERTILIZER THAT IS 92 TIMES STRONGER THAN MANURE
FOR FLOWERS, SHRUBS, VEGETABLES, LAWNS AND FRUIT
TREES**

Prices: ½-lb. cans, 40c each; 1-lb. cans, 75c each.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

TRY

Stim-U-Plant Tablets for your house plants and FERNs. You will be more than pleased with the Result.

Stim-U-Plant

Tablets should be used directly in the soil at the base of the plants or dissolved in water and applied to the soil. Do not spray the foliage. No matter how rich the soil may be, these wonderful little tablets will help the plants along.

Stim-U-Plant

Tablets are packed in four sizes:
Trial Size, 15 cents, containing 10 tablets.
Small Size, 25 cents, containing 30 Tablets.
Medium Size, 75 cents, containing 100 Tablets.
Large size, \$3.50, containing 1000 Tablets.



INCUBATORS

60-(70) EGG SPECIAL HOT WATER ST. HELENS INCUBATOR

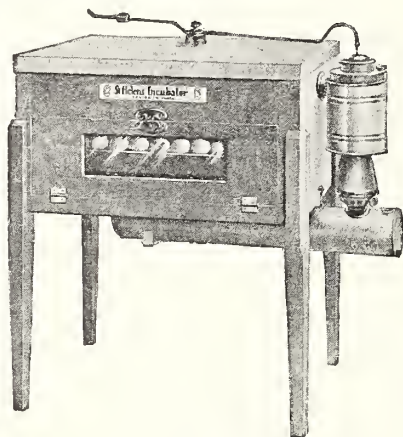
Double Walled, Hot water heated, copper tank and heater, safety lamp, chick nursery, self regulating.

This little hatcher is high grade and is constructed with heavy double, red cedar case and double top with felt insulation. Tank and Heater is of first grade cold rolled copper of same pattern as used on the larger incubators.

Weight, crated, about 45 lbs.

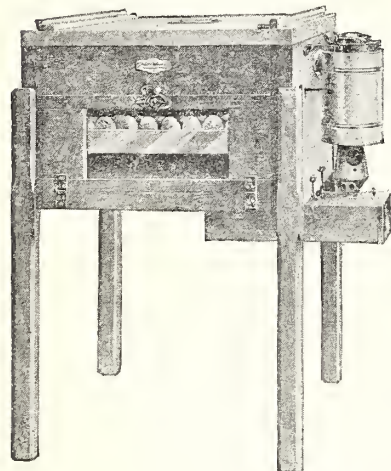
Price complete, \$14.00.

Furnished all complete with safety lamp, tested thermometer, egg tester, egg tray, heat regulator and complete instruction book.



60-70 Egg Size

130-140 EGG ST. HELENS INCUBATOR



130-140 Egg Size

Floor space required, 2 feet 9 inches by 2 feet 3 inches. Equipment: Large steel oil tank, safety burner and chimney, one egg tray, one removable chick nursery tray, one tested incubator thermometer, one egg tester, complete heat regulator attached, two temperature charts and complete instruction book.

Weight, crated, about 100 lbs.

Price, \$27.00.

260-(280) EGG ST. HELENS INCUBATOR

Floor space required, 2 feet 9 inches by 4 feet.

Equipment: Large steel oil tank, safety burner and chimney, two egg trays with removable racks, two removable nursery trays, one tested incubator thermometer, one egg tester, turning racks, complete heat regulator attached, two temperature charts and complete instruction book.

Weight, crated, 160 lbs.

Price for 260 to 280, \$42.00.

Complete incubator catalog sent on request.

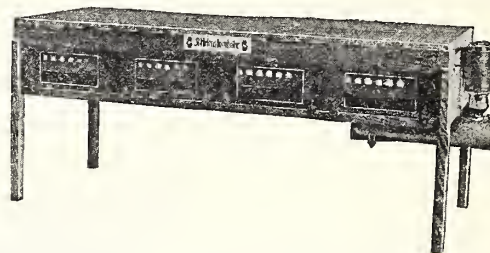
390-(420) EGG ST. HELENS INCUBATOR

Floor space required, 2 feet 9 inches by 5 feet 6 inches. Equipment: Large steel oil tank, safety burner and chimney, three egg trays, thermometer, one egg tester, three turning racks, complete heat regulator attached, two temperature charts and complete instruction book.

Weight, crated, 215 lbs.

Price for 390 to 420, \$55.00.

520-(560) EGG ST. HELENS INCUBATOR



Equipment: Large steel oil tank, safety burner and chimney, four egg trays fitted with removable egg racks, four removable chick nursery trays, one tested incubator thermometer of best make, one egg tester, four turning racks, complete heat regulator attached, two temperature charts and complete instruction book. Floor space required, 2 ft. 9 inches by 7 ft.

Weight, crated, 250 lbs.

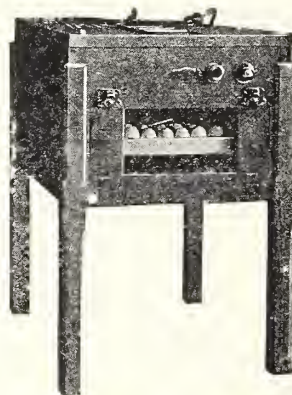
Price for 520 to (560), \$69.00.

The latest improved model 560-egg incubator is an ideal incubator for baby chick hatcheries and the larger poultryman. The large steel oil tank eliminates the filling of the lamp every day, which is the case with the small founts furnished with most incubators.

It has adjustable sash locks, compound top, metal fireproof ends outside the regulator double wood ends, making an extra warm air insulated space; also metal bound top and deeper egg chamber. The finest constructed hatcher that we have ever manufactured.

130-(140) EGG

ST. HELENS ELECTRIC INCUBATOR



Floor space required, 31 in. by 22 in. Furnished complete ready to operate, with tested thermometer, electric egg tester, egg tray, turning rack, nursery tray, pilot light extension cord and plug, and complete instruction book.

Weight, crated, 110 lbs.

Price for 130 egg size, \$42.00.

Send for Circular on the New 960 Egg Sectional Electric Incubator

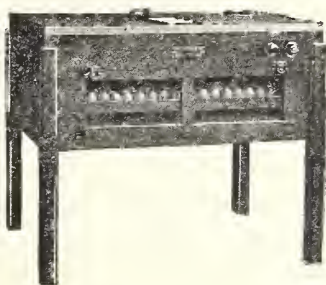
INCUBATORS AND BROODERS

260-(280) EGG ST. HELENS ELECTRIC INCUBATOR

Floor space required, 31 in. by 41 in. Equipped complete ready to operate with tested thermometer, electric egg tester, two egg trays with turning racks, two nursery trays, pilot light, extension cord, and complete instruction book.

Weight, crated, 170 lbs.

Price for 260-(280) Egg, \$55.00.



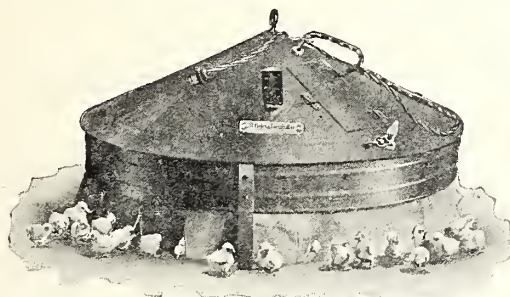
520 to 560 EGG CAPACITY ST. HELENS ELECTRIC INCUBATOR

Consists of two of the 260-280 size Double Decked but utilizes the same floor space. Longer legs are furnished for triple Deck if desired.

Weight, crated, 340 lbs.

Prices for 2 Deck, \$110.00.

LATEST IMPROVED ST. HELENS ELECTRIC BROODER



Through my double spider-web coil system in wiring this brooder, the heat is distributed evenly from outer edge to center and there is no Hot Spot or incentive for the chicks to crowd.

On a three cent heating rate this brooder can be operated cheaper than an oil stove. No. 2 brooder can be operated for 7c for 24 hours when filled with 200 chicks.

Regularly Wired for 110 Volt

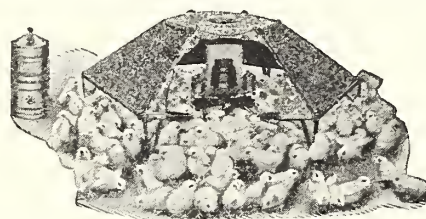
Furnished all complete with extension cord, felt yard, complete heat regulator attached, thermometer and pilot light and instruction sheet on operating brooder and feeding the chicks.

No. 2—32 in., 200-Chick Electric Brooder	----\$20.00
No. 3—42 in., 350-Chick Electric Brooder	---- 27.00
No. 4—52 in., 500-Chick Electric Brooder	---- 33.00
No. 5—60 in., 750-Chick Electric Brooder	---- 49.00

**WE BELIEVE THIS TO BE THE MOST ECONOMICAL
BROODER ON THE MARKET**

"PERFECTION" ELECTRIC HOVER
Special low priced hover—22 in. diameter for
100 Chicks
Price complete -----\$3.90

LATEST IMPROVED "PERFECTION" BLUE FLAME OIL BURNING BROODER STOVE



New patented direct oil feed with adjustable oil level, no danger of light going out. New improved heater with Pressed Steel Oil Well that generates without the use of wicks of any kind. Fitted with large two gallon metal oil container that will operate brooder for about two days with the one filling, small sizes for three days. Easily generated and produces a steady intense heat. Operates at a very low cost. Can be used in most any kind of a tight properly ventilated room, brooder house or the open front type poultry house with drop curtain. Late model, flat-top canopies come all set up with exception of legs, and are asbestos lined.

Made in four sizes, from 200 to 1200 chicks without crowding.

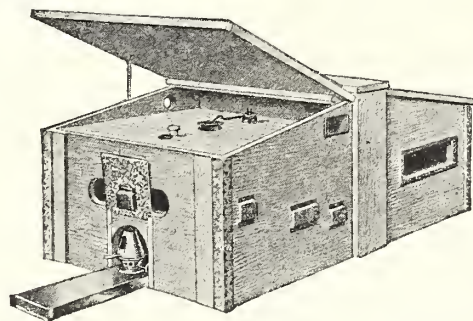
No. 2—34-in. canopy, 200-chick size, wt., 35 lbs. \$18.00

No. 3—44-in. canopy, 400-chick size, wt., 50 lbs. 23.00

No. 4—54-in. canopy, 600-chick size, wt., 65 lbs. 26.00

No. 5—64-in. canopy, 1200-chick size, weight. Write for prices.

"PERFECTION" PURE AIR BROODER



(Late Improved Brooder for indoor or outdoor use)

This storm-proof brooder is the finest box brooder we have ever manufactured. Made from western red cedar and nicely painted. Heater is in center and circular, chicks will never crowd. No danger of overheating, as there are two compartments, divided by curtain, one cooler than the other. As soon as the heater is warmed by lamp's heat a circulation of pure air from the outside is warmed and forced over the backs of the chicks, giving them a constant supply. This brooder can also be furnished with automatic heat regulator if so ordered as shown in the cut. Floors are of metal, making them sanitary and easy to clean. In operation clean sand is placed on the metal floor.

130-Chick Pure Air Brooder -----\$11.50

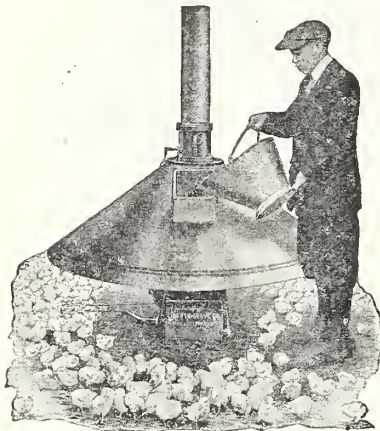
260-Chick Pure Air Brooder ----- 17.50

For Automatic Heat Regulator as shown in cut, add \$2

COMPLETE INCUBATOR AND BROODER CATALOG MAILED ON REQUEST

BROODERS AND OAT SPROUTERS

NO. 36 MAMMOTH MARVEL BROODER STOVE



One of the largest, heaviest and finest constructed Coal Stoves to be had. The large heater for this No. 36 outfit represents the highest efficiency obtainable in Coal Burning Brooders. Fitted with 72 inch Metal Canopy with chick capacity of one thousand to fifteen hundred. **Price \$46.00.**

Owing to limited space in the catalog we are unable to fully describe this stove. Write for complete descriptive matter.

PERFECTION COAL BURNING STOVE

Here is a stove especially adapted to burning low grade coal, bark, briquettes or coke. The improved fire box has wider grates, and heavy flaring cast iron body. Automatic heat regulator operates the draft dampers. Canopy made of galvanized steel.

42 in. canopy, 400 chick ----- **\$16.50**
52 inch canopy, 600 chick ----- **21.50**

Please note that we rate the brooders correct as to number of chicks brooded for best results. They are usually rated higher.

The stovepipe is extra, but all other equipment is included as shown in the picture. Three-inch pipe in 24-inch lengths, 30c each.

MISCELLANEOUS POULTRY SUPPLIES

OAT SPROUTERS

Cheap Feed and How to Produce It



Our "PROGRESSIVE" METAL GRAIN SPROUTER is now made in four sizes, the one illustrated being large enough for a flock up to 500 hens, and then we have a double "Progressive" Sprouter with capacity for 1500 hens or less, sprouting over three times as much as the one illustrated.

Be sure to secure good new heavy oats, as much of your success in sprouting will depend on the oats you use. Soak the oats from twelve to twenty-four hours, and for this purpose we supply the latest improved "PROGRESSIVE" sprouter with a soaking tank at the top. The picture shows the soaking tank inverted in the act of dumping the soaked oats into the top section.

The surplus water in the soaking tank as you empty each time will drain down through each section, re-moistening the lower sections of oats, and then drain out through a small pipe in the bottom.

These sprouters are made from galvanized steel and will last for years.

Jr. "Progressive" Sprouter, 100 hen size, without soaking tank, **\$9.00.**

No. 250 "Progressive" Sprouter, 250 hen sizes **\$16.50**

"Progressive" Sprouter, like cut, 500 hen size, **\$21.00**

Double "Progressive" Sprouter, 1500 hen size, **\$48.00**

"OLD FAITHFUL" LIME NEST EGG

Popular for a Reason

Even hens will give better results if they receive the best of treatment. Why try inferior substitutes when our wonderful nesting eggs will answer your every requirement?

They are almost an exact duplicate of a real hen's egg.

They are strong, durable, and odorless.

They neither break nor disintegrate.

They do not absorb and hold the cold, a characteristic making them most acceptable in cold weather, as the hens naturally object to any cold object in their nests.

This egg is made from pure sterilized sulphate of lime, which ingredient has been used by poultry raisers for many years as an aid toward keeping the nests in a clean and healthy condition.

Can you afford to be without the best?

Price per doz., **35c.**

CHINA NEST EGGS

Best grade opal eggs. Weight, per doz., $\frac{3}{4}$ lb. Price dozen **30c.**

LAMP BURNERS

No. 2 O. K. Safety Burner and Wick, **65c.**

No. 3 O. K. Safety Burner and Wick, **80c.**

CHIMNEYS

No. 2 Metal Chimney for incubator. Size 3-inch. Price **35c.**

No. 3 Metal Chimney for incubator or brooder. Size 5 or 7 in. **40c.**

POWDER GUNS

Whirlwind—Very economical for using insect powder of any kind. Price **35c;** postpaid **40c.**

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

MISCELLANEOUS POULTRY SUPPLIES

THE LITTLE PUTNAM STOVE

Holds 3½ pints of oil and burns a month without re-filling or trimming. Price each, \$2.75.

MOE'S SANITARY SELF-FEEDING BOXES



Made of heavy galvanized iron; soon pays for itself in preventing waste of feed. For keeping grit, shells and charcoal before the fowls at all time. 3 compartments. Weight, 2½ lbs., Price, 95c.

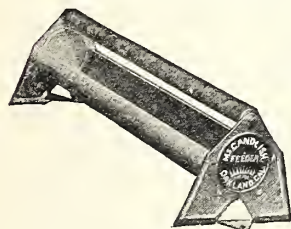
MOE'S GALVANIZED IRON DRINKING FOUNTAINS

Our galvanized Iron Drinking Fountains embody every good feature of the down-to-date drinking fountains, and we believe, are the best in use. They are easily filled, cleaned and kept clean. If placed in the shade in Summer time, the water will keep nearly as cool as in an earthen vessel. They are much lighter than the earthenware fountains and are safer to ship. A dozen can be put in compact package for shipment as they nest together. We offer them at a very low price.

Lareg size, about 1 gallon; weight 1½ lbs., each 60c.



McCANDLISH IMPROVED CHICK FEEDER



McCandlish Improved Chick Feeder is the latest and most practical young chick feeder on the market. The top bar as shown in cut revolves so chicks are unable to stand on it. Made in three sizes.

12-in. -----	40c
20-in. -----	50c
30-in. -----	75c

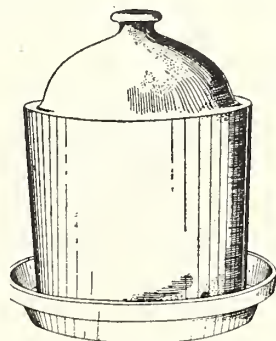
CROCK FOUNTS FOR WATER OR BUTTERMILK

3 sizes

½-gal. Fount, 60c

1-gal. Fount, 80c

2-gal. Fount, \$1.25

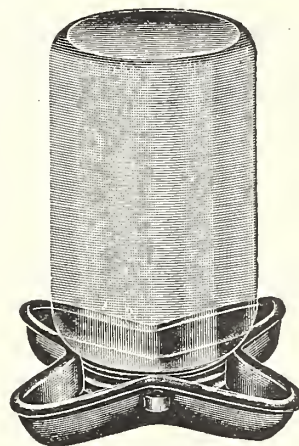


POSTAGE EXTRA
on all feeders
and founts.

STAR SANITARY FOUNTAIN AND FEEDER

For water, grit, chick food or grain, using ordinary Mason jar, either quart or half gallon. Has galvanized pan that is quickly detachable. The best fountain of this type. Price, one size only, without jar, Weight ½-lb. Each 10c; doz., \$1.10.

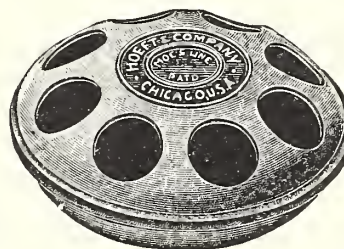
Star Fountain and Feeder
Jars not furnished with
Star Founts



10-QUART TIP-OVER PAILS

Just fill and tip them over. Price each, \$1.40.

MOE'S ROUND BABY CHICK FEEDERS



Can be taken apart easily for filling or cleaning.

No. 11—6 in. with 8 holes. Price each, 15c; 2 for 25c; doz. \$1.45.

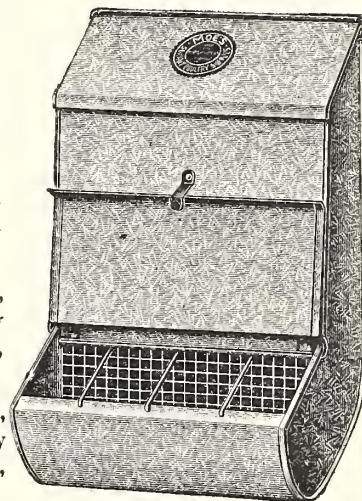
No. 12—8¼ in. with 12 holes. Price each 25c; per doz., \$2.75.

MOE'S DRY MASH HOPPER

A dry mash hopper of great merit, made of heavy galvanized iron. The curved bottom keeps the feed within easy reach of the birds and taper shape of hopper, prevents feed from clogging.

No. 36—12 in. wide, 19 in. high. Capacity 14 qts. Price, each, \$2.20.

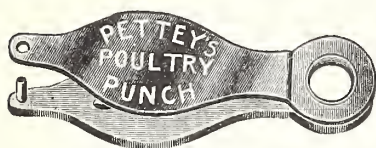
No. 37—24 in. wide, 19 in. high. Capacity 32 qts. Price, each, \$3.10.



PRICES SUBJECT TO CHANGE WITHOUT NOTICE

MISCELLANEOUS POULTRY SUPPLIES

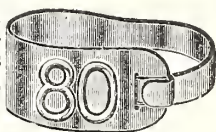
PETTY'S POULTRY PUNCH



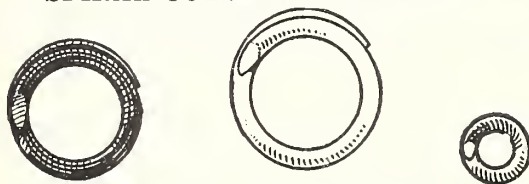
Latest, most convenient Poultry Punch; can be put on a key ring or used for a watch charm. Will not clog. Thoroughly practical. Price, postpaid, 25c.

LEG BANDS

Leader—Latest and best adjustable leg band out. Has neat, compact and smooth fastening, with non catching points; easily attached and is absolutely secure. Prices, postpaid, 12 for 15c; 25 for 25c; 50 for 40c; 100 for 75c.



SPIRAL COLORED LEG BANDS



MEDITERRANEAN AMERICAN BABY CHICK

Made like a key ring—easy to put on, nothing to catch or tear off—instantly identifies your birds as far as you can see the color. All sizes from chick to mature fowls. Ten color—Red, white, yellow, black, pink, green, brown, purple, light blue, dark blue. Prices:

No. 9—Mediterranean. One doz., 10c; 50 for 35c; 100 for 60c.

No. 11 and 12—American and Asiatic—One doz., 10c; 50 for 35c; 100 for 65c.

Baby Chick Spiral Colored Leg Bands. Price, 1 doz., 10c; 3 doz., 25c; 100 for 40c.



BANDETTES

**COLORLED CELLULOID LEG BANDS
BIG VISIBLE NUMBERS**

Bandettes are strongly made, will not become uncoiled, and having a smooth, plain surface, do not get clogged with dirt to obscure the numbers. The colors are not affected by weather; are always bright and distinctive.

The large numbers are impressed in bold type and cannot come off. After printing the numbers are covered with indestructible laquer. Made in colors: green, pink, yellow, red and blue.

25 for 50c; 50 for 90c; 100 for \$1.75; 500 for \$7.50.

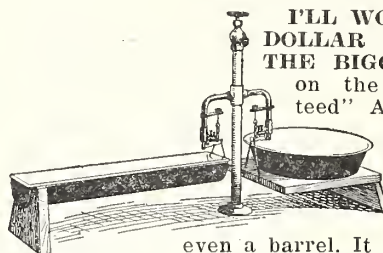
ELECTRIC EGG TESTER

Attach to any regular lamp socket and you can test your eggs in two or three days after incubation when the infertile eggs are still good to eat. Price, \$1.75.

EGG TESTERS

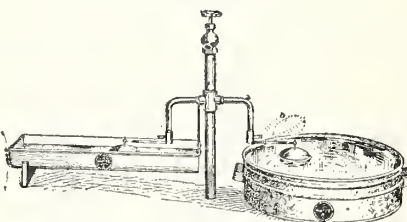
X-Ray—This egg tester is made to use on a lamp and will fit the ordinary No. 2 burner; very convenient and good. Price 50c.

AUTOMATIC WATER FAUCETS FOR POULTRY



I'LL WORK FOR LIFE for A DOLLAR & FOUR BITS. I'M THE BIGGEST LABOR SAVER on the farm. This "Guaranteed" Automatic Water Fountain is especially designed for poultry. It can be attached to any city water line, farm storage tank or even a barrel. It supplies fresh water to the chickens automatically. It is operated by gravity pressure, the weight of the water in the pan controls the valve. It is made of high grade brass throughout, fits standard 1/4-inch pipe. Price each, \$1.50. Send for circular. Postage extra.

SERVALL FLOAT FOUNTAIN



The illustration shows two ways that the Servall fountain can be used.

Every part of this fountain is made of pure brass, also the float. The Watertite Valve is

one of the good features of this fountain.

Made to fit standard 1/4 inch pipe.

This Servall Float Fountain will fill every requirement for chickens, rabbits, pigeons and stock, water control such as is used on small dairies or a horse or cow. It has a running capacity of from 2 to 5 gallons of water per minute depending on the pressure.

Price, each, \$1.35.

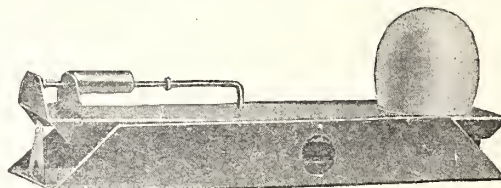
EGG SCALE



A well constructed, accurate and reliable Egg Scale at very nominal price. They are of the 22 oz. and 19 oz. types or in other words

for first grade and pullet eggs. Each one is intact in itself. Price, 50c; postpaid, 55c.

PERFECTION EGG GRADER



Made to grade eggs quickly. Will not get out of order. No loose parts to get lost. With one sliding weight all three grades—standard, pullet and peewee are separated. Each grader packed in a neat carton and mailed. Postpaid \$1.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

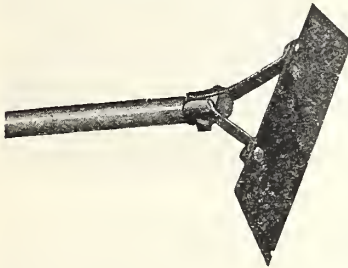
MISCELLANEOUS POULTRY SUPPLIES

CAPONIZING TOOLS



Every poultryman should have the New Philadelphia Caponizing Set. Supplied complete in pasteboard box. Price, per set, \$3.00.

No. 995 STAR POULTRY HOUSE SCRAPER



Heavy steel blade, 13 in. long is shaped with a sharp angle at each end of the scraping edge so as to get into corners and cracks. Blade is held rigid by heavy malleable braces running each way from the handle socket. Weight each 4 lbs., Price, \$1.25.

THERMOMETERS FOR INCUBATORS

No. 1092 WILDER

Equipped with adjustable legs which will allow the instrument to stand at any angle in any part of the machine. Price 90c.

No. 1052 Wilder, triangle shape, metal back. Price 80c.

No. 5782 Tycos, certified; triangle shape metal back, best incubator thermometer made, certified correct. Worth the additional cost. Price \$1.15.

BROODER THERMOMETERS

No. 1112 Wilder. Straight metal back. Price 70c.

No. 5792S Wood back, nice finish. Price, 80c.

St. Helens Brooder Thermometer, wood back. Price 75c.

HYGROMETER

No. 5796 Tycos Incubator Hygrometer. 4 in., black scale, mercury tube. Price \$1.85.



POULTRY FOODS AND REMEDIES

DR. HESS POULTRY REMEDIES

PAN-A-CE-A

Puts Your Hens in Laying Trim

Put your hen in laying trim—then you have a laying hen.

You want music in your poultry yard—Song, scratch, cackle.

You want an industrious hen—a hen that will get off her roost winter mornings, ready to scratch for her breakfast.

A fat, lazy hen may be all right for pot-pie, but for egg-laying—never!

Add Pan-a-ce-a to the ration daily, and see the change come over your flock. See the combs and wattles turn red. See them begin to cheer up and hop around. See the claws begin to dig in.

That's when you get eggs.

Prices: 1½-lb. pkg. 30c; 5-lb. pkg. 85c; 12-lb. pkg. \$1.75; 25-lb. pail \$3.50.

DR. HESS INSTANT LICE KILLER

Price: 1½-lb., pkg., 30c; 2½-lb. pkg., 60c.

DR. HESS WHITE DIARRHEA TABLETS

Price: Small size 25c; large size 50c.

DR. HESS ROUP REMEDY

Price: Small sizes, 25c; large size, 50c.

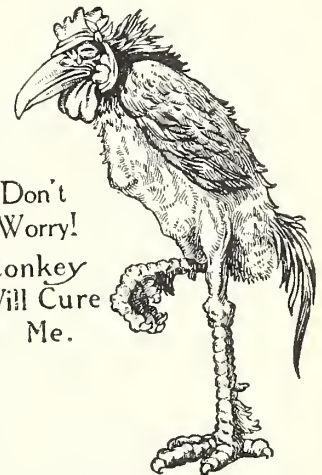
DR. HESS ROUP TABLETS

Large package \$1.00

CONKEY'S
POULTRY
REMEDIES

	Price
Bronchitis Remedy	--60c
Blackhead Remedy	--60c
Cholera Remedy	----60c
Gape Remedy	-----60c
Limberneck Remedy	----60
Worm Remedy	-----60c
Roup Remedy	-----30c
Roup Remedy	-----60c
Roup Remedy	----\$1.20
Rheumatic Remedy	--70c
White Diarrhea	" 30c
White Diarrhea	" 60c
White Diarrhea	" \$1.20

Don't
Worry!
Conkey
Will Cure
Me.



CONKEY'S HEAD LICE OINTMENT IN TUBES
--Small size 15c; Large size 30c.

CONKEY'S MITE LIQUID
For mites on poultry, or in house. Price: qt. can, 60c; 2-qt. can, 90c; 1-gal. can, \$1.50.

CARBOLINEUM

The famous wood preserver and insecticide. Paint or spray your chicken house, hog pens, tables, sheds, etc., with Carbolineum to permanently destroy all poultry and other vermin and preserve your buildings from rot and decay. Price, quart can, 60c; 1 gallon can, \$1.75; 5 gallon can, \$8.00.

SEND FOR FREE BOOK: "POULTRY CULTURE" BY GILBERT HESS, M. D. D. V. S.
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

POULTRY FOODS AND REMEDIES

Read what successful Poultry-Folks say about BARNES Vitamin Containing. Health and Vitality Building

WORM EMULSION

TRADE MARK REG. U.S. PAT. OFFICE

IF HARSH AND POISONOUS EXPELLING TREATMENT THROWS FOWLS OUT OF CONDITION AND OFF PRODUCTION -- AND IF EXPELLED WORMS AND WORM EGGS CONTAMINATE THE GROUND AND CAUSE RE-INFESTATION OF BIRDS -- WHAT IS GAINED BY EXPELLING?

EMULSION FED CHICKS OR FOWLS ARE ENABLED TO DIGEST AND ASSIMILATE THE WORMS AND LARVAE -- AND BETTER HEALTH AND VITALITY BEGINS AT ONCE

32 PAGE BOOKLET

WILL BE MAILED YOU

**'COMMON-SENSE
VS.
WORMS'**

FREE

This valuable little book is brimful of "common-sense" facts which have been proved by thousands of poultry-folks throughout the country during the past nine years. The advice in this book, if followed by you, should save you from nearly all of the losses caused by—chicks dying, slow growing youngsters, and low-vitality, non-laying, unthrifty adult stock.

WRITE FOR FREE BOOK TODAY TO

HERE'S WHAT USERS SAY:
 "DOES WHAT IS CLAIMED FOR IT"
 "WORKED WONERS"
 "KEEPS HENS IN FINE HEALTH"
 "A GOOSENT BLESSING"
 "WONDERFUL STUFF"
 "MAKES HENS LAY"
 "A REAL WONDER"
 "BEST EVER"
 A FAIR AND SQUARE TRIAL WILL
 MAKE A BOOSTER OUT OF YOU
 ALSO.

Emulsion Prices: Pints 60c ea.; qts. \$1.00; gals. \$3.00; 5 gal keg \$12.50.

Blatchford's "Fill-the-Basket" Egg Mash

THE STANDARD OF PERFECTION IN EGG MASHES

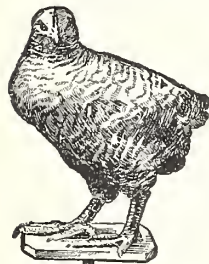
Blatchford's "Fill-the-Basket" Egg Mash is built upon the principle that the hen is an egg-making factory and that eggs are *manufactured* from the feed she receives. Consequently, her feed must be rich in materials required for egg-production. Scratch grains alone are not sufficient. They will maintain the hen's life, but *surplus* nourishment is absolutely necessary if she is to yield her maximum of eggs. Blatchford's Egg Mash successfully solves the problem of securing eggs both winter and summer. Every bag guaranteed to give satisfaction.

25-lb. sack, \$1.35; 100 lbs., \$4.35.



TRADE-MARK

BLATCHFORD'S CHICK MASH



2 1/4 lbs. at 8 weeks!
 Trade Mark
 Reg. U. S. Pat. Off.

avored starting and growing feed of the most prominent poultry-raisers in the country. It contains all the feeds and nutriment chicks need right from the start. It shields them from white diarrhea, bowel trouble and leg weakness. It does not force, but, by supplying proper nourishment to each and every part of the body, promotes steady and complete development in the shortest possible time. It contains no screenings, hulls or cheap by-products from the manufacture of breakfast foods, cereal foods or scratch grains. It carries chicks all the way—starts, grows and matures—without change of feed.

10-lb. package, 85c; 25-lb. sack, \$1.75; 100-lb. \$6.50.

MISCELLANEOUS POULTRY FOODS

Beef Scraps, Granulated Bone, Dried Buttermilk, Bone Meal, Chick Food, Developing Food, Cracked Corn, Scratch Food, Granulated Charcoal, Poultry Pepper, Sunflower for Feed, Sprouting Oats—at market prices.

JONES SULPHUR CANDLES

For Fumigation. 1/4-lb. size. Price each 10c; per doz \$1.

SODIUM FLORUIDE

1-lb., 30c; 2-lb., 55c; 5-lb., \$1.25; 10-lb., \$2.30.

CRESOTE

1-gal., 65c; 5-gal., \$2.25.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

STOCK REMEDIES

BAG BALM



A soothing, penetrating ointment for all infections of the bag. 60c pkg. wt. ½ lb.

GRANGE GARGET CURE

An unsurpassed and positive cure. 65c cans, wt. 2 lbs.



BLATCHFORD'S CALF MEAL



First on the Market—First in Quality—First in Results

Blatchford's Calf Meal raises calves from babyhood. It is extremely palatable. It is easy to feed. It saves both milk and money. It will pay you to use it. 25-lb. sack, \$1.80; 50-lb. sack, \$3.50; 100-lb sack, \$7.00.

Prices Subject to Change Without Notice

DR. HESS FLY CHASER

Will not burn the skin, nor taint the milk. Prices: 1 quart, 60c; ½ gal., 90c; 1 gallon, \$1.50.

DR. HESS DIP AND DISINFECTANT (Standardized)

As an aid in disinfecting Hog Pens, Kennels, Poultry-Houses, Barns, Outhouses, Drains and Sinks.

As an aid in the treatment of Scab, Ringworm and Superficial Mange.

As an aid in eliminating Lice, Fleas, Mites, and Sheep Ticks from Horses, Cattle, Sheep, Swine, Dogs, Goats and Poultry.

A reliable Disinfectant, Germicide, Deodorizer, Good alike for Home and Stable.

Carbolic acid coefficient—5 by Rideal Walker Method Price: 1 quart, 75c; ½ gal., \$1.25; 1-gal., \$2.00.

DR. HESS STOCK TONIC

Is a scientific compound for horses, cattle, hogs and sheep. Prices: 2-lb. pkg., 35c; 4½ lbs., 75c; 10 lbs., \$1.50; 25-lb. pail, \$3.50.

DR. HESS HEAVE CURE

Price: 1½-lb. pkg., 50c.

DR. HESS WORM POWDER—For Stock

Price: 1½-lb. pkg., 50c.

You can get one of Dr. Hess Poultry or Stock Books for the asking.

CONKEY'S FLY KNOCKER

We have users who say that this is the best fly spray they have ever used. We believe them. Try it.

Prices: 1 quart, 70c; ½ gallon, \$1.15; 1 gal., \$1.75.

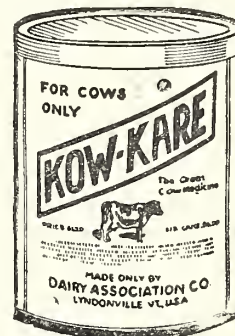
KOW-KARE

Makes Poor Cows Good—Good Cows Better, and Makes More Money for Cow Owners

"THE HOME COW DOCTOR"

A handbook for cow owners, describing diseases that effect a cow's productivity and telling how to prevent them in a single cow or a whole herd. Free on request.

KOW KARE (originally Kow Kure) is different from anything ever discovered for cow troubles. It is the only cow medicine that is strictly for cows only. It is not a stock food, but a specific remedy especially for cow diseases, such as Barrenness, Scours, Milk Fever, Caked Udder, Bloating, Red Water, Swelling of Bag, etc. It prevents abortion and removes retained after-birth. It tones up the system, renews vitality, restores appetite to cows that are "off feed," and keeps them healthy. Makes poor cows good, good cows better, and makes more money for cow owners. It increases the milk flow, and enables the cows to produce strong, vigorous calves. It is the dairyman's gold mine, and a sure profit-payer. Medium cans, mail wt. 2 lbs., prices 65c; Large cans, mail wt. 4 lbs., \$1.25. If mailed postage extra.



Antiseptic—
NOT A POISON
Powerful Sterilizer,
Deodorant, Disinfectant

Used on farms and Dairies to sterilize fillers, cans, pails, strainers, churns, milk bottles, milking machines, cream separators. For disinfecting and deodorizing stables, floors, gutters, hog pens, poultry houses and used on livestock for wounds, cuts, contagious abortion, retained after-birth, calf scours and also in whitewash. Every farmer should use B. K.

Trial size, price each, 35c.

B. K. Disinfectant, 10-oz. bottle. Price each, 65c.

B. K. Disinfectant, 32-oz. bottles. Price each, \$1.25.

B. K. Disinfectant, 1-gal. Bottles. Price each, \$3.00.

Not available on account of being a liquid.



Your cows will repay you with more and better milk if you keep them free from flies.

Guaranteed to give satisfaction or we will cheerfully refund your money.

Once you try Cow-Ease you'll wonder how you got along without it.

1 quart Cow Ease, 60c; ½ gallon Cow Ease, 90c; 1 gallon Cow Ease, \$1.50.

Use one of our Continuous Spray Pumps (Listed on Page 68) for economical application of fly spray. They are efficient.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

WIRE FENCING

BLUE RIBBON POULTRY FENCE

Spacing between strand wires from bottom to top is as follows: 1, 1, 1, 1, 1½, 1¼, 1½, 1¾, 2, 2¼, 2¾, 3¾, and balance 4 inch.

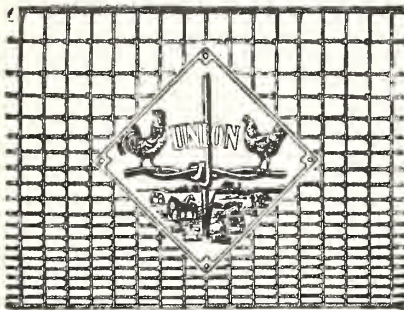
Heavier than Poultry netting. No. 15 wire top and bottom, and with stays and strands of No. 17 wire. Stay wires 4 inches apart.

2048-4-17 Blue Ribbon P. Fence, 20 strands, 4 feet high, weight per 100 rods, 463 lbs., per rod, 64c.

2360-4-17 Blue Ribbon P. Fence, 23 strands, 5 feet high, weight per 100 rods, 544 lbs., per rod, 75c.

2672-4-17 Blue Ribbon P. Fence, 26 strands, 6 feet high, weight per 100 rods, 625 lbs., per rod 87c.

UNION LOCK "SQUARE MESH" POULTRY FENCE



Made of two strands of No. 20 wire run horizontally with No. 19 steel wire vertical strips every three inches, the first six cables 1¼ inches apart; the next three are 1½ inches, and then 6 to 2 inches, and all above are 4 inches. This makes the fence tight at the

bottom, where needed for small chicks. This fence will fit any unevenness of ground, and because of its strength and construction requires no top or bottom rail and only half as many posts as the ordinary wire netting. It is thoroughly galvanized and will last for years. The wires are not mutilated in weaving. Easy to handle, easy to build and easy to move.

Price per Roll

36-inch, 165 feet to roll	-----	\$5.00
48-inch, 165 feet to roll	-----	5.50
60-inch, 165 feet to roll	-----	6.40
72-inch, 165 feet to roll	-----	7.20
Galvanized Staples, per lb. Poultry sizes	-----	15c

NO. 20 DIAMOND MESH POULTRY WIRE

In rolls 150 feet long, in the following widths.

This is commonly referred to as Poultry Netting.

	Width 12-in.	Width 18-in.	Width 24-in.	Width 30-in.
2-inch mest	-----\$1.25	\$1.75	\$2.25	\$2.75
1-inch mest	-----2.75	3.90	5.00	5.95
	Width 36-in.	Width 48-in.	Width 60-in.	Width 72-in.
2-inch mesh	-----\$3.00	\$3.90	\$4.90	\$5.90
1-inch mesh	-----6.80	9.10	11.25	13.60

Write Us for Special Price on Large Quantities

POULTRY HOUSE FEEDING FENCE

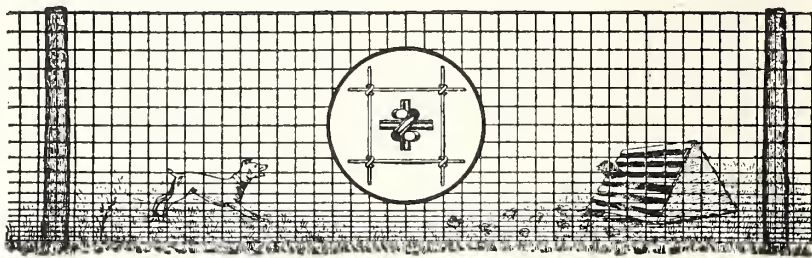
Made expressly for the fronts of the poultry house.

Size of mesh is 2x6 inch, all joints electric welded.

Won't cut the combs on your fowls.

No. 948—4 ft. high Chicken Feeding Fence, per ft. 18c.

No. 736—3 ft. high Chicken Feeding Fence, per ft. 16c.



No. 14 SQUARE DEAL POULTRY FENCE

Top wire No. 11 and bottom wire No. 12, strand and stay wires, No. 14. A very substantial poultry fence, strong enough to turn farm stock. The first three spaces at the bottom are only one inch wide, a much closer spacing than common poultry netting. Stays are 6 inches apart.

1636-6-14 Square Deal P. Fence, 36 inches high, weight per 100 rods, 728 lbs., per rod 69c.

1948-6-14 Square Deal P. Fence, 48 inches high, weight per 100 rods, 877 lbs., per rod, 83c.

2260-6-14 Square Deal P. Fence, 60 inches high, weight per 100 rods, 1027 lbs., per rod, 97c.

SQUARE DEAL POULTRY GATES

3 foot wide, 48 in. high, price	-----	\$4.00
3½ foot wide, 48 in. high, price	-----	4.15
3½ foot wide, 60 in. high, price	-----	4.50

CYCLONE ORNAMENTAL WALK GATES

3 Foot Opening, 36 inches high, price	-----	\$4.50
3 Foot Opening, 42 inches high, price	-----	4.75
3 Foot Opening, 48 inches high, price	-----	5.00
3½ Foot Opening, 36 inches high, price	-----	4.75
3½ Foot Opening, 42 inches high, price	-----	5.00

Write Us for Prices on Single Walk Gates, Drive Gates, For Yards or Fields and Ornamental Wire Fence

SQUARE DEAL FARM GATES

8-foot Square Deal Farm Gate, 48 inches high, weight 62 lbs. Each \$9.25.

10-foot Square Deal Farm Gate, 48 inches high, weight 73 lbs. Each, \$11.00.

12-foot Square Deal Farm Gate, 48 inches high, weight 81 lbs. Each, \$12.25.

12-foot Square Deal Farm Gate, 54 inches high, weight 84 lbs. Each, \$13.50.

BARBED WIRE

Galvanized Barb Wire, 2 point light, 80 rods in spool.

Galvanized Barb Wire, 4 point light, 80 rods in spool.

Galvanized Barb Wire, 2 point Gildden, 80 rods in spool.

Galvanized Barb Wire, 4 point Gildden, 80 rods in spool.

Galvanized Barb Wire, 2 point heavy, catch weight, per 100 lbs.

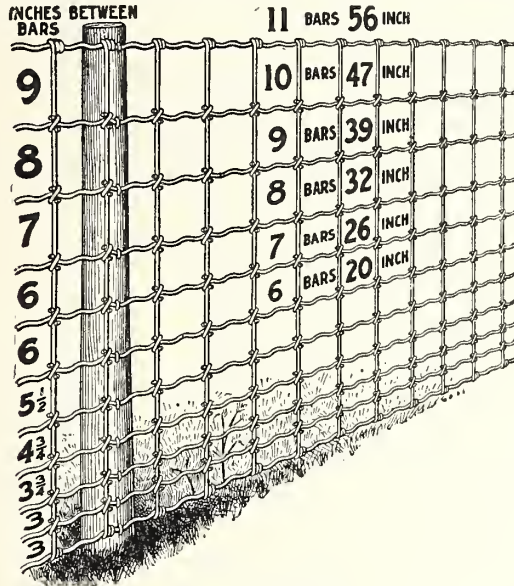
Galvanized Barb Wire, 4 point heavy, catch weights, per 100 lbs.

Market Prices on Application

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

WIRE FENCING

SQUARE DEAL FIELD AND HOG FENCE



BERRY WIRE

We specialize in berry wire for Berry Growers. Our stock is large and our prices are FAIR.

No. 12 Smooth Galvanealed Berry Wire. Per 100 lbs., \$4.70.

No. 14 Smooth Galvanealed Berry Wire. Per 100 lbs., \$5.05.

Strong, simple and durable. The best fence for the money every put out. Strand wires are waved slightly, giving an elastic tension to the fence that keep it tight and trim, absorbing all expansion and contraction due to extreme changes in temperature. Stay wires are in single piece.

THE SPECIAL FEATURE OF

Square Deal Fence, however, is its unique lock. This lock is put on by peculiarly constructed dies in a very powerful machine. The dies are so shaped that in pressing the lock over the strand and stay wire it forms a bend into both the stay and strand wires, thus clinching them together in a manner that is practically immovable, yet allowing the flexibility which is necessary in stretching over rough and uneven ground.

This lock obviates wrapping the stay wire around the strand wire or making any joints.

No. 12½ SQUARE DEAL FENCE

Top and bottom wires No. 10 guage; strand and stay wires, No. 12½ guage.

726-612½ Square Deal Fence, 26 inches high, weight per 100 rods, 599 lbs. Per rod, 50c.

832-6-12½ Square Deal Fence, 32 inches high, weight per 100 rods, 689 lbs. Per rod, 58c.

1047-6-12½ Square Deal Fence, 47 inches high, weight per 100 rods, 950 lbs. Per rod, 75c.

Stay wires or pickets on above are 6 inches apart.

LOUDEN WIRE STRETCHER

The Stretcher-Hoist is an implement for which there are a multitude of uses around the farm, aside from wire stretching. It may be used interchangeably as stretcher or hoist without adjustment. This rig is unusually convenient at butchering time, or at any time heavy loads, such as wagon boxes, hay racks, etc., are to be lifted. The rope grip is positive and will not slip; will hold wire at any tension or load at any height. The wire grips are fitted with raised flanges which absolutely prevent wire from slipping. A swivel at the end next to the wire and away from the post lets the twist out of the wire, but does not let the stretcher itself turn and tangle the ropes.

In stretching or hoisting the operator should stand away from the wire or load out of danger.

For stretching woven wire fence, two stretchers are used, top and bottom.

Capacity 400 lbs., weight 5¼ lbs.. Price, \$1.75.

IWAN PATENT IMPROVED POST HOLE AND WELL AUGER

The Iwan Augers are substantial and durable. They are adapted to wet or dry, hard or soft soil, are quick and easy in operation, and easily emptied. They have a large cutting surface, consisting of two blades, each having two cutting edges.

The shank being made of ¾ inch pipe, the augers may be used for boring wells by adding lengths of pipe as necessary. The smaller sizes are used extensively for boring under stumps in land clearing.

6 inch Iwan Auger, weight 8 lbs., each ----- \$2.75

7 inch Iwan Auger, weight 9 lbs., each ----- 3.00

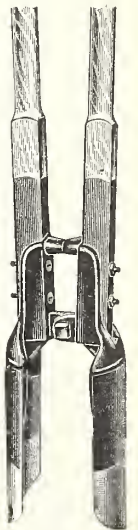
8 inch Iwan Auger, weight 10 lbs., each ----- 3.00

PERFECTION POST HOLE DIGGER

The shoulders extending from the upper part of the sockets are provided with mortises and tenons, which interlock, making a firm connection that absolutely prevents all side motion when operating, at the same time preventing the operator from getting his hands pinched.

Perfection Post Hole Digger, weight 10 lbs., each, \$2.50.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE



SPRAYS AND INSECTICIDES

Insect or Disease	Plant Attacked	Spray With	Quantity for 1 Gal. Spray (To 1 gal. water)	Quantity for 50 Gal. Spray	SPRAYING TIME
Codling Moth	Apple, Pear	Arsenate of Lead	1½ to 3 Tablespoonfuls	1 to 2 lbs.	1. When blossoms fall before calyx closes. 2. Three weeks later. 3. Six weeks later. 4. Seven weeks later. 5. Three weeks later.
San Jose Scale Oyster Shell Scale	Apple, Pear	Lime Sulphur (Liquid or dry)	Liquid 14 to 18 Tablespoonfuls Dry 9 to 11 tablespoonfuls	Liquid 5-gal. Dry 12 to 15 lbs.	After leaves drop in fall or before buds swell in spring
Wooly Aphis	Apple	Blackleaf "40" with whale oil soap Tree Tangle-foot	1 teaspoonful 1 oz. soap Spread thin band tree about 6" wide and 4 ft. from ground	½ lb.-2 lbs. Soap	When Insects Appear After leaves drop in fall or before buds swell in spring
Green, Rosy Black & Mealy Aphis	Apple, Peach Plum, Prune Cherry, Shrubs Flowers and Beans	Blackleaf "40" with whale soap	1 teaspoonful 1 oz. soap	½ lb.-2 lbs. Soap	When buds swell in spring, later when insects appear, before leaves curl. (Note: Blackleaf "40" can be used in combined sprays with lime & sulphur)
Cabbage Aphis	Cabbage	Blackleaf "40" with whale oil soap	1 teaspoonful 1 oz. soap	½ lb.-2 lbs. Soap	When insects appear
Cabbage Worm	Cabbage Cauliflower	Arsenate of Lead Garden Guard	1½ tablespoonful use as dust	1 lb. Use as dust	When worms appear, but not after plants start to head
Snails, Slugs	Vegetables, Flowers and Plants	"Snarol" snail control meal			Scatter freely around plants in evening
Leaf Curl	Peach, Plum and Pear	Lime sulphur (Liquid or dry)	Liquid 14 to 18 tablespoonfuls Dry	Liquid 5-gal. Dry 12 to 15 lbs.	After leaves drop in fall or before buds swell in spring
Mildew	Currants Gooseberries Roses	"Acme" 2-way spray Garden Guard	9 to 11 tablespoonfuls 9½ tablespoonfuls Use as dust	9½ lbs. Use as dust	Begin spraying when buds burst and apply 4 or 5 sprays at 10 day intervals
Tent Caterpillars	Apple Currants Gooseberry	Arsenate of Lead	1½ to 3 tablespoonfuls	1 to 2 lbs.	When buds show pink

FLOWERS:

For leaf eating insects dust heavily with Acme Garden Guard. For sucking insects such as aphid or plant lice spray with Black Leaf "40" at the rate of 1 level teaspoonful and 1 ounce of soap to 1 gal. water. For blight, rust or other forms of fungous growth spray with solution of 8 to 10 level tablespoonfuls Acme Bordeaux Mixture to 1 gal. of water.

SHADE TREES:

For leaf eating worms and caterpillars spray with Acme Arsenate of Lead at the rate of 6 level tablespoonfuls to one gallon of water; to combat oyster-shell and scurvy scale on shade trees use Acme Lime Sulfur at the rate of 9 to 11 level tablespoonfuls in each gallon of water.

SNAROL

A Reliable Method for Controlling Snails, Slugs and Cut Worms



SNAROL is a meal, carefully prepared, contains active ingredients placed in it by special process, and is in fact made to imitate the natural food which these pests are fond of.

The object in developing SNAROL by the Antrol Laboratories, was to make something that would not injure the plants, and could be placed about as a food for snails and slugs. Stomach poisons have proven to be the most successful in these cases, and SNAROL can be placed about without any danger of destroying vegetation and is perfectly safe.

1 lb. Carton, Price Each -----50c
3 lb. Carton, Price Each -----\$1.00

KAYSO

Spray spreader and adhesive. Spreads the spray and makes it stay. Sold in cans net weight 8 oz. 15c each. Use 2 tablespoonfuls to each 10 gallons of spray.

WHALE OIL SOAP



Used in combination with Blackleaf "40."

For Aphis, plant lice, etc.

Price: 1-lb. Brick, 15c.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

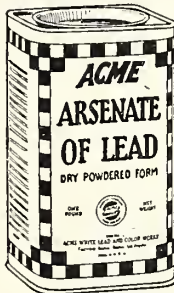
SPRAYS AND INSECTICIDES



As good as the liquid product without 65% water



Spray "Bordo" before appearance of the fungous spore



Easy on Foliage—Hard on Bugs

ACME DRY LIME SULFUR

Acme Lime Sulfur is a standard 33° Baume Lime Sulphur solution (converted to dry powdered form) having all the effectiveness of the liquid product when dissolved in water.

Due to being condensed into a powder, it is much more convenient to handle, dissolves readily in cold water, does not deteriorate, freeze or crystallize, eliminates paying freight on 65% of water.

1-lb. Can, Price Ea.	-----\$.30
5-lb. Can, Price Ea.	----- 1.25
10-lb. Can, Price Ea.	----- 2.25
25-lb. Drum, Price Ea.	----- 4.00
50-lb. Drum, Price Ea.	----- \$6.50
100-lb. Drum	----- 11.50

ACME BORDEAUX MIXTURE

Acme Bordeaux Mixture is a properly balanced mixture carrying equal parts of Lime and Blue Vitriol.

Acme Bordeaux Mixture is as effective as and does away with all the inconveniences of a home made Bordeaux Mixture. Sold in dry powdered form only as the copper content in Bordeaux Mixture cannot keep active in the presence of moisture.

1-lb. Cartons, Price Ea.	-----\$.45
4-lb. Paper Bags, Price Ea.	-- 1.25

ACME ARSENATE OF LEAD

Acme Arsenate of Lead contains not less than 30 to 33% of Arsenic Oxide and not more than 1% water soluble Arsenic oxide, insuring maximum effectiveness and minimum damage to the foliage. Being extremely fluffy, Acme Arsenate of Lead is a superior.

1/2-lb. Cartons, Price Ea.	-----\$.25
1-lb. Cartons, Price Ea.	----- .35
4-lb. Paper bags, Price Ea.	-- 1.15

Write for Prices in large quantities

ACME GARDEN GUARD

A convenient and economical garden insecticide and fungicide ready for use as it comes in the package.

No sprayers, sprinklers of water are required. Use as a dust. Just sift from the shaker top carton on plants. Apply when plants are damp, early in the morning or late in the evening when the dew is on.

An Ideal Insecticide for the Housewife to Use.

1-lb. Sifter top Carton, Price Ea	35c
5-lb. Paper bags, Price Ea.	----90c



Apply Dry and Watch the Bugs Die

ACME 2-WAY SPRAY

An approved balanced combination spray for combating chewing insects and fungus diseases in one application. Can be applied as a dust without fuss or mixing as well as in a liquid spray if desired.

The cost of application is by far the greatest expense of spraying, making a properly balanced double acting spray a decided economy.

ACME 2 WAY SPRAY is composed of 14% Arsenate of Lead and 83% Bordeaux Mixture. When used according to directions the spray will be an approved balanced two-way spray which will effectively combat the chewing insects and fungus diseases as well.

1/2-lb. Cartons, Price Ea.	----\$.25
1-lb. Cartons, Price Ea.	---- .45
5-lb. Paper bags, Price Ea.	- 1.25

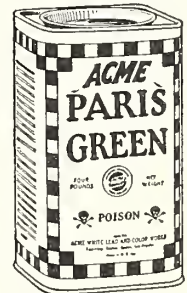
ACME PARIS GREEN

Acme Paris Green is scientifically made from carefully selected raw materials. Contains over 50% Arsenious Oxide.

1/4-lb. Cartons, Price Ea.	-----15c
1-lb. Cartons, Price Ea.	-----50c



Two Results in One Application



Strong, Deadly Effective

REX LIME and SULPHUR LIQUID

Solution for San Jose scale is endorsed by experimental stations and state horticultural societies of all the fruit growing states. It is recognized and recommended as the best known preparation for exterminating San Jose on all deciduous trees. Rex Lime and Sulphur Solution is made of the purest and best quality of Sub-limed Sulphur and of Lime that tests 99.98 per cent pure. It is a clear, deep cherry colored liquid, free from sediment and is a beautiful product, is very reasonable in price, and its work is perfect. It is all ready to mix just as you get it. Merely add 11 gallons of water with each gallon of the Lime and Sulphur Solution. There is no sediment to clog the sprayers. No boiling to be done, which saves fuel, time, labor and annoyance. It is always alike and uniform in strength and results. Prices: qt., 25c; gal., 75c; 5 gals., \$2.50; bbl., \$13.00.

BLACK LEAF "40" FOR APHIS

Nicotine Sulphate

Latest and best tobacco spray for aphis, thrip, plant lice, etc. One pound makes 170 gallons. 1-oz. bottle, 35c; 1/2-lb. can, \$1.25; 2-lb can, \$3.50; 10-lb. can, \$13.50.

NICO-FUME (Liquid)

The best fumigant and spray for greenhouse work. Kills aphis, red spider, mealy bug, thrip, etc. 1/4-lb. can, 75c; 1-lb. can., \$2.25; 4-lb. can, \$8.00; 8-lb. can, \$15.00

Caution Against Spraying When Trees Are in Full Bloom—Spraying when trees are in bloom may destroy bees and other insects necessary to pollinate and these natural agents should not be interfered with as their work of transferring the pollen insures bountiful crops and shapely fruit.

POISONS AND INSECTICIDES



CYANO GAS

Cyanogas "A" Dust kills by giving off gas on exposure to the moisture in the air. For control of ants, rats, fleas, moles, poppers, wireworms, snails, slugs. 1-lb. cans price each, 65c.

"G" Fumigant for greenhouse fumigation 5-lb. can, price each, \$2.60; 25-lb. can, price each, \$9.00.

BLUESTONE—Vitrol

Lb., 15c; per 100 lbs., market price.

SULPHUR, POWDER

Lb., 6c; 100 lbs., market price.

TOBACCO DUST

Lb., 15c; 10 lbs., \$1.20.



VEGETABLE SPRAY

For destroying and preventing maggots, grubs and worms that infest turnips, radishes, beets, rutabagas, cabbage and cauliflower, etc., also recommended for combating crown borers in strawberries. ½ pint 50c; pints, 65c; quarts, \$1.00; gals., \$2.50.

TREE TANGLEFOOT

For caterpillars, moths and worms. Protects against all climbing insects. One pound makes a band 9 feet long. Price: 1 lb., 60c.

GRAFTING WAX

One lb., bars. Price 50c; ½ lb., 30c; ¼ lb., 15c.

SPRAY PUMPS

LOWELL COMPRESSED AIR SPRAY PUMP

Note These Exclusive Points

1. It is devoid of complex or intricate parts and is the easiest understood Compressed Air Sprayer in the world.
2. It is both automatic and positive in its action.
3. One charge is sufficient to expel entire contents of tank.
4. Each sprayer is thoroughly tested with both air and water pressure.
5. Machine can be easily washed and aired after using.
6. It is so simple in construction that a child can operate it.

Tree attachment and funnel, for fill-

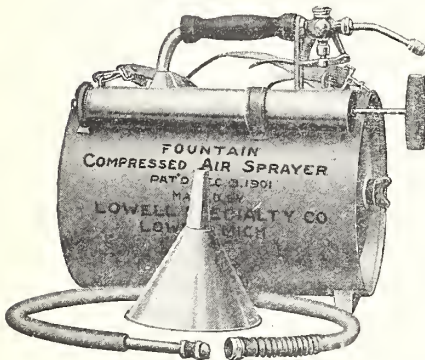
ing, with brass wire strainer with each machine. Strongest Air Pressure Sprayer made—will stand five times the air pressure necessary to operate. Convex heads, seamed and soldered. Capacity of tank 3 gallons. Handy to carry; Shoulder strap with each machine.

No. 110—Galv. Steel, Aluminum Fin., \$6.50.

No. 111—Bras, Polished and Lacquered, \$9.00.

No. 120—Galv. Baby Fountain, \$5.00

No. 121—Brass Baby Fountain \$7.00



AUTO-SPRAY No. 9—COMPRESSED AIR SPRAY PUMP

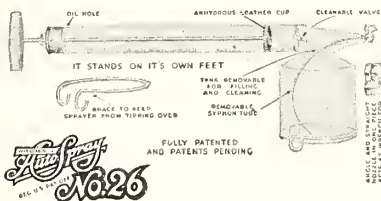
The Auto-Spray No. 9 is a screw top, with following exclusive features. The pump handle is malleable iron and the can collar on both galvanized and brass sprayer is of brass, also the locking nut. With both of these parts made of brass it is impossible to have them corrode and stick so tight that they cannot be unscrewed. Packing ring on tank is held in place by a flange pump collar which floats so that it does not have to turn in its seat. This insures perfect lock and long life. Tanks are well riveted and soldered both inside and outside.

SPECIFICATIONS—Capacity 3 ½ gallons; height 2 feet; diameter 7 in.; furnished with 2 feet ½-in. 5-ply hose and our KLOG-PROOF, AUTO-POP Hand Grip Automatic Nozzle. This nozzle made with pipe thread and can be used with ordinary pipe extension.

AUTO-SPRAY No. 9-D, Galvanized Tank, Price, \$6.50.

AUTO-SPRAY No. 9-B, Brass Tank, Price, \$9.00.

It Sprays Continuously



CONTINUOUS SPRAY PUMP

It is so constructed that it not only sprays on the downward stroke of plunger, but also when it is drawn back, thus causing a continuous mist like spray. Air chamber 1 ½ inches in diameter by 14 inches long.

No. 26A Brown Auto Spray, Tin Tank, Tin Air Chamber, \$1.00

No. 26B Brown Auto Spray with Brass Tank, Tin Air Chamber, \$1.25.

No. 26C Brown Auto Spray, All Brass Tank and Air Chamber, \$1.50.



PRICES SUBJECT TO CHANGE WITHOUT NOTICE

SPRAY PUMPS

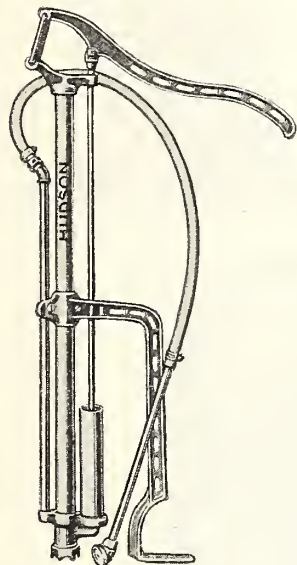


No. 125 — Air chamber 14½ inches in length; holds about 1 qt.; all tin. Price 50c.

No. 323 — Same as No. 125, except

it has galvanized tank with tin tube. Price 60c.

Marvel No. 126



LEVER HANDLE BUCKET PUMP NO. 126

The Hudson Marvel Spray Pump handles all spray solutions. It's high pressure adapts it for use in small orchards and in home gardens; for use with whitewash, coldwater paint, insecticides and disinfectants.

All working parts are made of brass. Valves and nozzle parts are easily removed for cleaning.

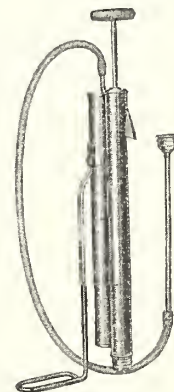
Equipment—3 ft. of 3/8 in. hose, a 12-inch extension and Ideal Fog Nozzle with discs for fine spray or solid stream.

Price -----\$6.00

No. 14 WHITE WASH PUMP

No. 14.—Whitewash sprayer and force pump is designed for use in pail or bucket and will fit any size. The pump is made of galvanized iron. The top and bottom are made of brass. It is regularly equipped with 3 feet best hose, one foot brass extension rod and brass nozzle, which gives two different size sprays. It has ball valves and steel foot rest. The pump is provided with an overflow which carries all the liquid which might get above the plunger, back into the pail. The plunger is easily removed and easy to operate to do double action. This pump is especially designed for spraying whitewash.

Price -----\$3.00

Whitewash Pump
No. 14

Modak

No. 122



HUDSON MODAC BUCKET PUMP NO. 122

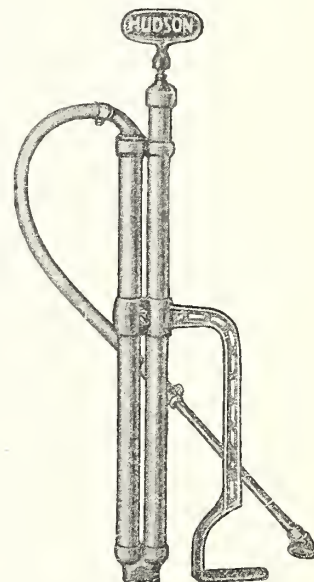
The Modac is used in spraying fruit trees, vines, garden truck, ornamental shrubs and hedges, for whitewash, disinfectants and insecticides or in an emergency as a fire pump. It is double acting, developing 150 lbs. nozzle pressure. Makes a very convenient portable outfit because it can be used with a bucket or in a small tank. Valves and plunger accessible for cleaning, etc. Nozzle discs are removable and reversible producing any desired spray from the finest to a solid stream. All parts except the handle and foot rest are brass. Equipped with 3 ft. of 3/8 in. hose, 12 in. extension and Ideal Fog Nozzle.

Weight 6 lbs., Price, \$4.75.

HUDSON MOHAWK SPRAY PUMP No. 128

No. 128 Mohawk Bucket Spray Pump. This little pump is very convenient for all kinds of work. Has brass cylinder and valves. 3 ft. of 3/8 in. hose, 12 in. extension and Ideal Fog Nozzle.

Price, \$4.75.

Mohawk
No. 128

FOR SPRAY EXTENSION RODS SEE PAGE 70

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

SPRAY PUMPS



Armstrong Standard Spray Pump

Save Time Every Day With An

ARMSTRONG STANDARD SPRAY PUMP

We have complete stock of repairs for standard pumps.

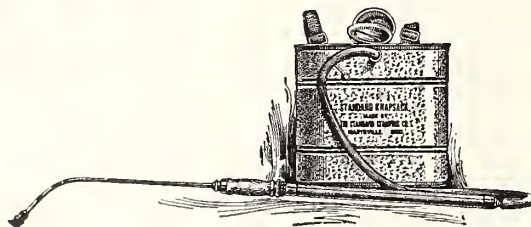
One more than a hundred thousand farms this simple pump of proven success is used every day for spraying trees, vines and garden crops, whitewashing, washing vehicles, extinguishing fires, spraying animals, disinfecting coups and pens, injecting medicines in veterinary cases, and for scores of other uses.

It works by hand—easily—yet sprays the tallest fruit tree from the ground. It sprays at the tree—and not at the nozzle of the pump. No need for scaffolds, platforms, or extension handles. All the work of the Armstrong Standard is done from the ground.

Single action—perfect control of expensive spraying materials. Made throughout of brass, practically indestructible. Even the valves are brass, brass balls working in brass seats. No material used in its construction that can be affected by chemicals. No leather suckers to dry up or rot. No castings to rust. It should last a lifetime with ordinary care. Every Armstrong Standard Spray Pump is guaranteed for five years.

For bucket use a $3\frac{1}{2}$ foot length of hose is supplied. To use with barrel or tank for a large orchard, a longer hose up to 25 or 30 feet is desirable. For praying young or scattered trees or truck crops such as potatoes, tobacco, etc., the knapsack and curved extension are used. With these attachments, the Standard will spray potatoes, one row at a time, at the rate of an acre an hour or better.

The Standard with $3\frac{1}{2}$ feet of hose and full set of Nozzles, \$5.50	
Knapsack Attachments	4.00
Extensions, 19 inches long	1.00
Extra Hose, $\frac{1}{2}$ -inch 4 ply Red Tubing, per foot	$13\frac{1}{2}$ c

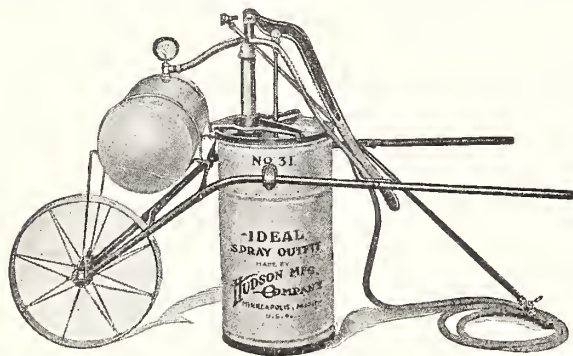


IDEAL SPRAY OUTFIT 32 and 33

A strong durable wheel barrow sprayer. The Ideal is well designed and will develop a higher pressure than any other wheel barrow sprayer. Pump—seamless brass cylinder, $1\frac{3}{4}$ in. diameter, 7 in. long; air chamber 2 in. diameter, 30 in. long, made of steel tubing. Tank—Heavy Galvanized Steel, re-inforced top an dbottom with heavy channel iron hoops. Capacity 15 gallons. Wheel—20 in. diameter by $2\frac{1}{2}$ in. tire. Valves—Branze balls, one cage. Equipment—6 ft. $\frac{3}{8}$ in. spray hose, 4 ft. $\frac{1}{4}$ -in. pipe extension. Fog nozzle and leakless shut-off. Air tank is boiler iron, tested to 275 lbs. pressure. Pressure Guage reads to 200 lbs.

No. 33 Outfit crated, weight 105 lbs. Price \$36.00.

No. 32 Outfit without Air Tank or Pressure guage, weight 75 lbs. Price \$25.00.



SPRAY HOSE

For Bucket and Barrel Use.

Size $\frac{3}{8}$ inch Red Tubing. Prices per foot, 12c.

Size $\frac{1}{2}$ inch Red Tubing. Price per foot, $13\frac{1}{2}$ c.

Size $\frac{1}{2}$ inch Grey Heavy Reliance 7 ply for Barrel Pumps, per foot, 24c.

IRON SPRAY PIPE EXTENSIONS

In lengths 3, 4, 6, 8 ft. long	10c per ft.
2 ft. brass extension	75c each
4 ft. brass extension	\$1.00 each

SPRAY NOZZLES

Myer's Bordeaux. Price each, \$1.25.

Vermorel. Price each, \$1.00.

No. 120 Hardy. Price each, 90c.

Vapo Nozzle, Straight and Angle, 80c.

$\frac{1}{4}$ inch Globe Valve Shutoff, each \$1.50.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

BEE SUPPLIES

No. 1 WESTERN CEDAR DOVETAILED HIVE

Complete with 1 super. Consists of 1 bottom board, 1 body, 1 super, 1 cover, 8 Hoffman brood frames, 1 division board, 2 tightening springs for super, 6 section holders, 5 slotted separators, 24 sections all nailed and ready for use.

1—8 Frame Hive, \$3.75; 1—10 Frame Hive, \$4.25.

For foundation starters for frame and sections consisting of 2 sheets medium brood and 3 sheets thin surplus foundation. Add to price of hive, 35c.

Per 5 hives K. D. flat, complete without foundation starters, weight about 150 lbs. Price for 5—8 frame, \$13.50. For 5—10 frame, \$15.00.

No. 1 WESTERN CEDAR DOVETAILED SUPERS

No. 1 Super—For 8 frame hive, section, no starter, set up. Price, \$1.50. 1—10 frame, \$1.75.

No. 1—5 K. D. Supers for 8 frame hive with sections, no starter; weight about 40 lbs. Price, \$6.25. 5—10 frame Supers as above \$8.00.

HOFFMAN BROOD FRAMES

The Hoffman Improved Foundation Fastening Frames are the latest, most satisfactory brood frames. The top bar is made with a beveled strip, which holds the foundation absolutely in place, perfectly straight and exactly in center of top bar. Anyone can put foundation in these new frames very rapidly.

Improved Hoffman frames, 10 for 65c; 100 for \$6.00.

SEPARATORS

One separator should always be placed between each section holder so that the bees will build the honey comb even in each section. Slotted wood separators, $4\frac{1}{2}$ x18. Weight 8 lbs. per 100. 10 for 15c; 100 for \$1.25.

PORTER BEE ESCAPE

Great labor-saver; weight 2 ozs. Price, postpaid, 25c. Double, 30c.

WIRE EMBEDDERS

The Spur—Weight 4 ozs. Price, postpaid, 40c.

SECTION HONEY BOXES

Cut No. 1—Sections are made of the choicest white bass-wood lumber, and are perfect in finish and free from defects.

Root's No. 1—Best White, 100 for \$1.60; 500 for \$7.50.

SECTION HOLDERS

Six section holders with separators, one follower and wedge are put in each 24-lb. super, and each section holder holds four 1-lb. honey boxes. The bottom strip is $\frac{1}{4}$ -inch thick, and is cut out to fit in sets of the slotted sections—the style generally used.

Root's— $1\frac{1}{2}$ x18 $\frac{3}{4}$ inches, slotted holders, weight 23 lbs. per 100. Price each, 5c; 100 for \$4.50.

COMB FOUNDATION

There is little question but that it pays to use foundation in full sheets in the brood frames and sections, especially the latter. If you think you cannot afford so much you should at least have a strip for a starter. It will help much more than it costs you, in getting straight, even combs. You can use a starter any width from one inch up.

Light Standard Brood Foundation— $7\frac{3}{4}$ x16 $\frac{1}{2}$; 7 sheets per lb. Price per lb. 95c.

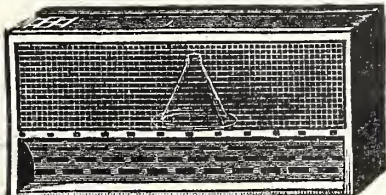
Light Section Foundation— $3\frac{3}{4}$ x15 $\frac{1}{2}$, 28 sheets per lb. Price per lb., \$1.05.

FOUNDATION FASTENERS

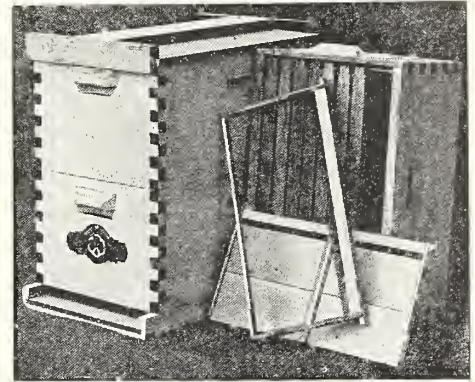
Parker's—A satisfactory and serviceable tool; weight 1 lb. Price 50c.

BEE ENTRANCE GUARDS

Roots—These are to admit workers, but exclude drones. Weight $\frac{1}{4}$ -lb. Price, 35c.

ALLEY'S COMBINED DRONE AND QUEEN TRAP

Improved wire front; 8 frame, weight $1\frac{1}{4}$ lbs. Price, \$1.05.

BEEES WAX—Market Price

No. 1 Western Cedar Bee Hive for
4 $\frac{1}{4}$ -4 $\frac{1}{4}$ -1 $\frac{7}{8}$ Sections

HONEY BOARDS

Used to confine the queen to the brood chamber.

8-frame, unbound, 12x19 $\frac{1}{2}$ inches. Price 50c; 10 frame 50c.
8-frame, wood and wire bound, 13 $\frac{1}{2}$ x20 inches. Price, 90c.
10 frame \$1.00.

BEE VEILS

Globe—Has five bars that will keep veil away from head. Weight 6 oz. Price \$1.55.

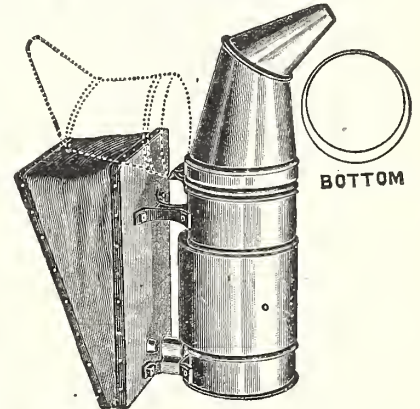
No. 2 Veil—Cotton tulle, silk face. Price, \$1.30.

New ABC XYZ of Bee Culture—Price \$3.50.

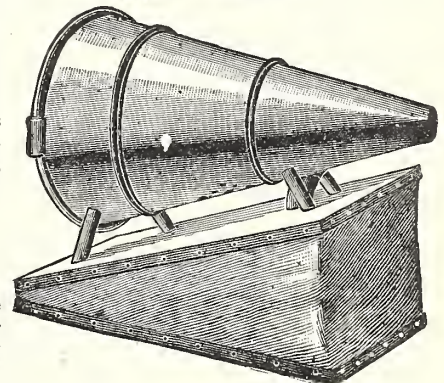
No. 30 TINNED WIRE— $\frac{1}{2}$ -lb. Spools 40c.

Standard Root Smoker

Makes a good strong blast. The most satisfactory and serviceable smoker. Standard size, 3 $\frac{1}{4}$ -inch; wt., 2 lbs. Price, \$1.80.

**Alexander Feeder**

This is comparatively a new feeder. The bottom board slides forward, and under the hive. The bees go into the feeder from the brood chamber. This feeder has many good features Wt. 1 $\frac{1}{4}$ -lbs. Price, 80c.

**Clark's Cold Blast Smoker**

Probably the most popular smoker in use today. Weight 1 $\frac{1}{4}$ lbs. Price, \$1.25.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Sooner or later you will use a De Laval

The Better Way of Milking

1. How Milk Is Made

Because 85% of the milk a cow gives is secreted during the milking operation, it is plain to be seen that the way she is milked has a great influence on the amount produced. If the method of milking is not pleasing, then the cow's nervous system, automatically and unconsciously to the cow, checks the manufacture of milk. When a cow does this, she is said to "hold up her milk."

If, however, the milking is pleasing to the cow, as it should be, then she makes milk to her greatest ability. If a cow is not properly milked, she not only gives less milk each day but "dries up" sooner. De Laval Milkers please the cows.

2. Uniform Action

The De Laval Pulsator is operated through an independent pipe, from the vacuum pump, and these pulsations are governed by a master pulsator which is geared to the pump, and is as regular and uniform in its action as the pendulum of a clock. Every milker unit runs at exactly the same speed as the master pulsator. The number of pulsations or squeezes per minute is exactly right, neither too fast nor too slow, and cannot be changed at the whim of the operator. The De Laval is the only milker which has this feature—which is absolute assurance that your cows will always be milked at the uniform and correct speed, which cows like.

3. Pulsator Close to Udder

The pulsator is located close to the udder, so that the pulsations will reach the teat-cups in the shortest possible time, and accounts for the vigorous action and abrupt periods of release and massage so stimulating and soothing to the cows and to which they respond so well.

The further away the pulsator is from the udder, the more sluggish the pulsations, and for this reason the De Laval Pulsator was put as close to the udder as possible. The pulsator itself is extremely simple, having only one moving part. It is non-adjustable, requires no oiling, and will run for years without any attention whatever—an exclusive De Laval feature.

4. Alternating Action

The alternating action of the De Laval Milker causes milk to be drawn from the two front teats, while the two rear teats are given a massage and brief rest period and the rear reservoirs are filled. The next moment the rear reservoirs are emptied by the application of suction to the two rear teats, while the front teats are given a gentle massage and moment of rest, and the front reservoirs are being filled.

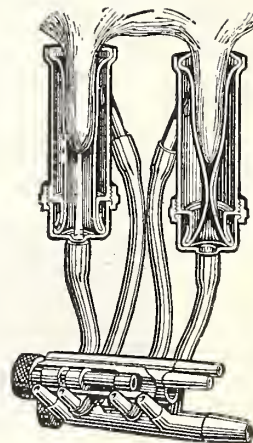
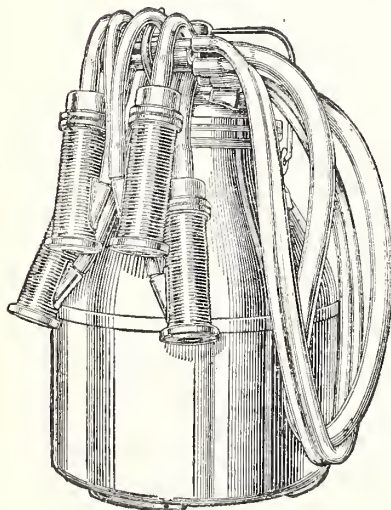
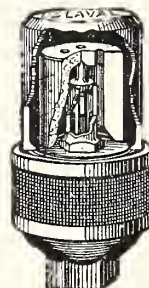
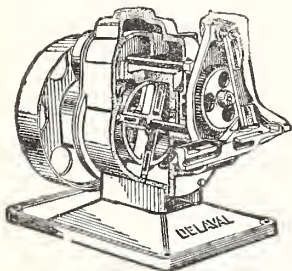
In this manner an even and continuous flow of milk is drawn from the udder, and is another one of the reasons why the De Laval Milker is so successful and milks faster, better and cleaner than any other way.

5. Self-Adjusting Teat-Cups

De Laval Teat-cups fit all sizes of teats, whether they are large or small. The rubber liner is small enough to fit snugly about the smallest teats. This liner is held in a metal casing large enough to fit the largest teats when the liner is expanded. No metal touches the teat.

The rubber liner, fitting snugly about the teat, permits the vacuum to be applied only to the point of the teat and not to the sides.

This, together with other exclusive advantages briefly outlined in the foregoing, accounts for the pleasing and gentle action of the De Laval Milker, and is one of the reasons why the cows like and respond to it so well.





Joe Olson, owner of the Purity Dairy operating a retail milk route in Tacoma, is shown at the left in the picture above.

His hired man has milked 35 to 50 cows every day with the De Laval Milker for over two years. Mr. Olson would not go back to hand milking under any consideration, and is a satisfied De Laval Milker user.

A De Laval is easy to clean.

JUNIOR MILKER OUTFIT

Price, \$185.00

For complete outfit (except piping) consisting of: 1 No. 37 Pulso-Pump, 1 Complete Milker Unit, 1 Junior Sanitary Trap, 1 Vacuum Controller, 6 Pulsation Cocks, 6 Vacuum Cocks, 6 Pipe Clamps, 1 Ring Insertor, 1 Set of Brushes. Engine or Motor not included in price.

This outfit is regularly furnished with one milker unit, but is designed to operate two with an installation not exceeding 60 feet in length of pulsation pipe.

For additional accessories write us.

The capacity of each Milker Unit is from 8 to 10 hour by fast operators. We can supply De Laval Milkers

SENIOR MILKER OUTFIT

Price, \$370.00

This outfit is designed to operate two or three standard De Laval milker units with an installation not exceeding 150 feet in length of pulsation pipe.

For complete outfit (except piping) consisting of:

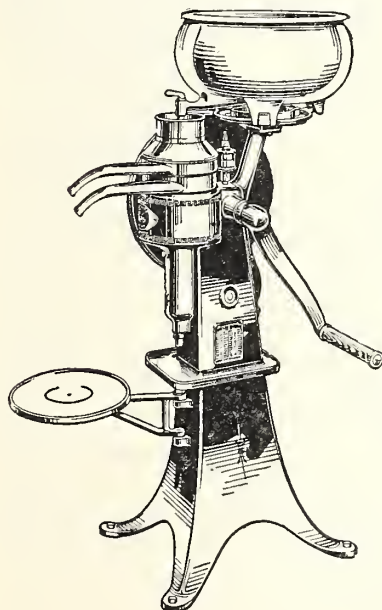
1 No. 43 Pulso Pump, 2 Complete Milker Units, 1 Senior Sanitary Trap, 1 Vacuum Controller, 1 Pulso-Relay, 11 Vacuum Stall Cocks, 11 Pulsation Cocks, 11 Pipe Clamps, 1 Set Brushes, 1 Ring Insertor. Prices do not include Engine or Motor—Installation extra charge.

cows per hour. This can be increased to 12 and 14 per hour for any size herd or barn.

THE NEW DE LAVAL SEPERATOR

While the outward appearance of the new machine is unaltered, the increased diameter of the bowl, its self-centering feature, the new method of distributing the in coming milk, the new discs, the bell speed-indicator, and the new automatically oiled neck bearing mark such an advance over former models that we call the latest model the New De Laval to distinguish it from older machines which did not have these improvements.

If you have not already examined one of the new machines, don't fail to do so at the earliest opportunity.



Size	Capacity	Price
7—	200 lbs pr hr	\$5.00
8—	225 lbs pr hr	80.00
10—	350 lbs pr hr	92.50
12—	500 lbs pr hr	102.50
16—	750 lbs pr hr	125.00
17—	1000 lbs pr hr	140.00
22—	1350 lbs pr hr	235.00

STEAM TURBINE

Size	Capacity	Price
19—	750 lbs pr hr	\$210.00
20—	1000 lbs pr hr	225.00
25—	1350 lbs pr hr	310.00

De Laval Separator Oil. Price per gal., \$1.45.

De Laval Pulso Pump Oil. Price per gal., \$1.60; 5 gal., \$7.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

ELECTRIC POWER DRIVE

For All Hand Machines

Alternating Current for No.

5, 7, 8, 10, 12, 15, 17
\$60.00

No. 22, \$75.00

Direct Current

Write for Prices

Universal Power Drive for
All Hand Machines
Price, \$17.50



DAIRY SUPPLIES

STYLE-B BOTTLE FILLER



Style B fillers are equipped with our standard Little Valves. The valves are spaced to fill Standard cases. We can furnish fillers to fill any special case desired.

Style B fillers are very compact, require very little floor space for operation. The handles are placed in a position that simplifies the operation yet are entirely out of the way. When pulled down they lock automatically so that both hands can be used in capping.

The tanks of our Perfection Fillers are made of cold roll copper, tinned both sides. A steel band encircles the top of the tank, which makes it very rigid. The band is completely covered with copper and sweat into place.

The pan base in which the valves are fixed is one solid casting. The uprights are galvanized steel tubes, the legs and case lifts are grey iron.

Outlet is made of brass, nickel plated, strictly sanitary. The plug is easily removed consequently the valve is easily cleaned.

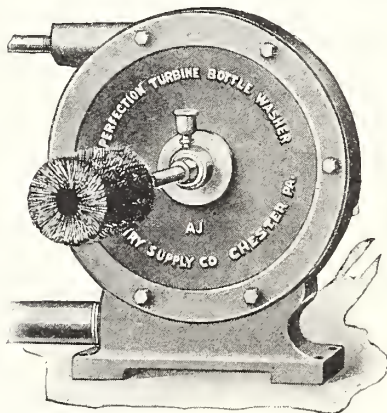
4 Bottle Filler

Regular equipment includes removable Strainer Cover.

No. B-1—Tank capacity 125 quarts; floor space, 25x32 inches. 4 bottle. Price, \$115.00.

No. B-2—Double End Tank capacity, 125 quarts; floor space, 25x32 inches; height, 42 inches; weight, 300 lbs. Price \$165.00.

CHESTER PERFECTION STEAM TURBINE WASHER

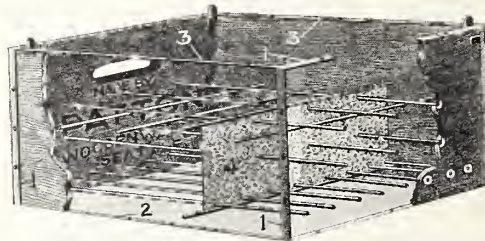


The Chester Turbine Washer requires less steam for operating than any other on account of the steam entering at the top and following shaft wheel three quarters of the way around. The turbine wheel is heavy and

accurately balanced so that it runs smoothly. The bearing are large Single end. Price, \$29.00.

We can also furnish Chester Combination Washers, Rinsers and Sterilizers. A fine outfit for the small dairy. Write for descriptive catalog.

SANITARY BOTTLE DELIVERY CRATES



Strongest and most sanitary crates made. Dovetailed corners, reinforced inside. Will save their cost many times over in convenience and far less breakage of bottles.

No. 16—Quarts; holds 12 bottles; wt., 13 lbs. -----\$1.60

No. 22—Half-pints; holds 24 bottles; wt., 12 lbs. -----\$1.65

No. 20—Pints; holds 20 bottles; wt. 12 lbs. ----- 1.60

No. 19—Quarts; holds 12 bottles; wt., 13 lbs. Special

high wire ----- 1.65

No. 18—Pint filler case; holds 12 bottles; wt., 15 lbs. - 1.75

RUBBER APRONS

Heavy duty, snag proof rubber Dairymen's Wash Aprons. Price each, \$3.75.

GALVANIZED MILK BOTTLE CARRIER

We have a new style milk bottle carrier made of round galvanized iron that is especially handy for the dairymen. All electric welded and will not break.

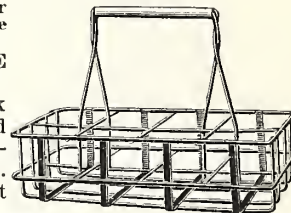
With this carrier you can carry either pints, quarts or half-pints. They come in 4 and 6 and 8 qt.

Price, 4-quart -----\$1.35

Price, 6-quart ----- 1.65

Price, 8-quart ----- 1.85

NOTE—If you Haven't Tried Wyandotte for Washing Your Dairy Utensils, Try It.



MILK BOTTLE CAPS

We can furnish all the leading and most used bottle caps. Our caps are made from the very best material and are heavily paraffined. We carry in stock in quantity desired. The No Lip caps, Lip caps and Hagerstown or Perfection caps, and we also take orders for any kind of caps desired, by the barrel, with name on, without extra charge. For milk, cream, Whipping Cream and Buttermilk.

Let us quote you prices by the case.

Price in small quantities, 30c per lb.; or per M, 60c.

We carry in Stock All Kinds of Milk Bottle and Can Brushes, Which We do Not List in This Catalog.—



PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DAIRY SUPPLIES

THATCHER MILK BOTTLES



Thatcher Milk Bottles are manufactured in the most modern factory in the country. The Thatcher Manufacturing Co. is the only concern having the use of the famous Owen Bottle Machine. This machine is called the wonder of the age and is the only bottle machine that automatically gathers the glass, taking up the same amount each time, giving correct capacity, uniform weight and even distribution of glass.

OUR GUARANTEE

First—Correct capacity, uniform weight. When you serve milk in Thatcher Milk Bottles you have no loss; you give full measure; no more, no less. You also have the satisfaction of knowing that your bottles comply with the city ordinances.

Second—Even distribution of glass, superior annealing. Ninety per cent. of breakage is caused by poor distribution of glass and inferior annealing. There are no thin spots in our bottles and they are perfectly annealed, which means your breakage will be reduced to a minimum.

Third—Perfectly smooth finish at top for caps. There are no sharp edges to cut brush handles, or checks in the glass to chip off, as our bottles are absolutely smooth and make a perfect fit for the caps.

Fourth—Absolute water white glass for the Thatcher Manufacturing Company make no other kind of bottles but milk bottles, and the glass is always kept at the proper color for milk bottles. No smoky, blue, green, red or yellow milk bottles from us. Ours are all water white.

Price per dozen quarts, \$1.00. Per gross, wt., 270 lbs.

Price per dozen pints, 80c. Per gross, wt., 179 lbs.

Price per dozen ½-pints, 65c. Per gross, wt., 110 lbs.

Gross Prices quoted on application.

DAIRYMEN'S MILK CANS

Coast Special

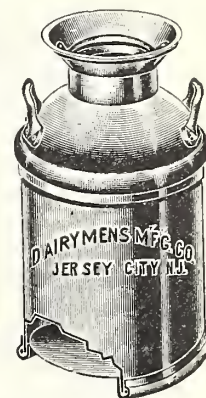
City Delivery Cans



This is a companion can to the "Jersey" but with solid metal handles. The "Coast Special" has already won wide acceptance in the Pacific Coast dairy regions and lately has gained popularity in mid-west territory.

One marked improvement this season—malleable iron handles with accompanying holes, rivets and solder have been discarded. The "Coast Special" is now fitted with our drop-forged and solid non-breakable "Steel-Grip" handles, inseparably welded to the breasts—a sanitary and serviceable feature that our Western friends will appreciate.

In the "Coast Special" we have the same heavy gauge one-piece "All-Seamless" neck, breast and bowl. The breast loop is a solid steel ring, "Clinched-on," so there are no crevices and cracks, and which cannot loosen up. The heavy "Jersey" rolled bottom is securely riveted and thoroughly soldered inside and out. All parts are "Heavy-coat" tinned.



Coast Special

Heavy five gallon capacity; wt., 12 lbs. Price, \$3.85

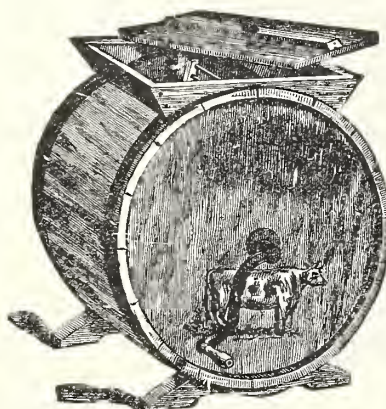
Heavy ten gallon capacity; wt., 24 lbs. Price \$5.10.

Light five gallon, weight 12½ lbs. Price \$3.25.

Light ten gallon, weight 18 lbs. Price, \$4.15.

Dozen prices on application.

CYLINDER CHURNS



Dovetailed white pine staves, dashers attached to steel shaft-in. Can be removed for cleansing.

Size 1—Holds 3 gallons; churns 2 gallon; wt., 20 lbs. Price, \$4.50.
Size 2—Holds 4 gallons; churns 3 gallon; wt., 25 lbs., Price, \$5.50

One gallon capacity; wt., 2½ lbs. Price each, \$1.70.

Two gallon capacity; wt., 6½ lbs. Price each, \$3.35.

Three gallon capacity; wt., 7½ lbs. Price each, \$3.65.

Dozen Price on Application.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DAIRY SUPPLIES

DAZEY GLASS CHURNS

Extra heavy clear glass jar, with a finished smooth top. Steel screw-cap, heavily nickel plated. Dasher of white maple thoroughly seasoned. Dash rod of steel, tinned. Frame one piece. Natural finish wood handle. Gears carefully fitted to run smooth and noiseless. All castings double aluminum coated.

No. 20—Capacity, 5 pints; churning capacity, 3 pints; height over all, 12 inches; wt., each, 5 lbs. Price \$2.15.

No. 30—Capacity, 7½ pints; churning capacity, 4 pints; height over all, 13 inches; wt., each, 6¼ lbs. Price, \$2.50.

No. 40—Capacity 9 pints; churning capacity, 5 pints; height over all, 14 inches; wt. 7¼ lbs. Price \$3.00.

BABCOCK TEST GLASSWARE

Milk test bottle; height 6 in., graduation 10% in 1.5% -----40c
 Cream tests bottle; height 6 in.; graduation 40% into 1% -----45c
 Pipette, milk and cream, 17.6 and 18 C. C. -----40c
 Acid measure, 17.5 C. C. -----20c

THERMOMETER



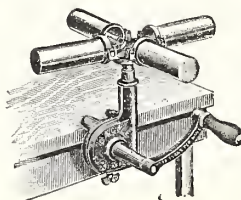
Pasteurizing; length, 10 inches, Price \$1.25

Osmer's Dairy Thermometer. Price 35c.

We Carry a Large Stock of Brushes for All Dairy Purposes. Prices Subject to Change Without Notice

BABCOCK MILK TESTERS

Facile, Jr.



The simplest, best made and most satisfactory small hand tester on the market. Adapted for farmers and small dairymen. Working parts entirely enclosed. Bottles are seamless brass. Furnished complete with glassware, acid and directions.

4 bottle; for milk and cream; weight 16 lbs. \$10.00.

PEERLESS TUBULAR SANITARY MILK

COOLER

The most satisfactory and efficient cooler made. This cooler is made of 1½-inch seamless copper channel tubes tinned inside and outside, flushed into solid cast brass heads. The channel tubes do away with distributing solder strips, making a perfect sanitary cooler. The upper and lower troughs are made of tinned copper and cast end plates. They are removable for cleaning.

OPERATION The cooler is suspended on brackets, which we furnish. The water enters at bottom and flows up through each tube and out of upper outlet. The milk runs down evenly distributed over the outside of tubes into lower trough. Total height of cooler, including troughs, is 24 inches.

15-in. wide, 9 tube high, Cap. per hour, 182 lbs. \$37.50
 18-in. wide, 9 tube high, Cap. per hours, 250 lbs. 40.50
 24-in. wide, 9 tube high, Cap. per hour, 300 lbs. 47.50
 30-in. wide, 9 tube high, Cap. per hour, 375 lbs. 51.50
 36-in. wide, 9 tube high, Cap. per hour, 450 lbs. 55.00

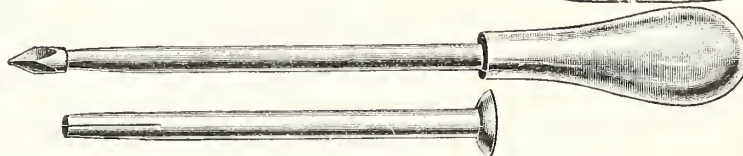
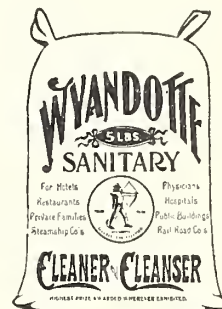
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DAIRY SUPPLIES



Wyandotte Sanitary Cleaner and Cleanser is a dry, snow-white powder, with no grease, fat, caustic, lye, acid or preservatives in its composition. Neither does it contain a particle of animal or vegetable matter. It is especially adapted to the cleaning of dairy utensils, tinware, cans, bottles, separators, etc. It can also be used to advantage by the housewife for family washing and general household cleaning. Carried in stock in the following sizes.

	Price
1 Sack, 5 lbs. net	\$.55
3 Sacks, 15 lbs. net	1.50
5 sacks, 25 lbs. net	2.25
25-lb. sacks, net	2.00
Kegs, 80 lbs. net	6.15
Bbls., 280 lbs. net	17.95

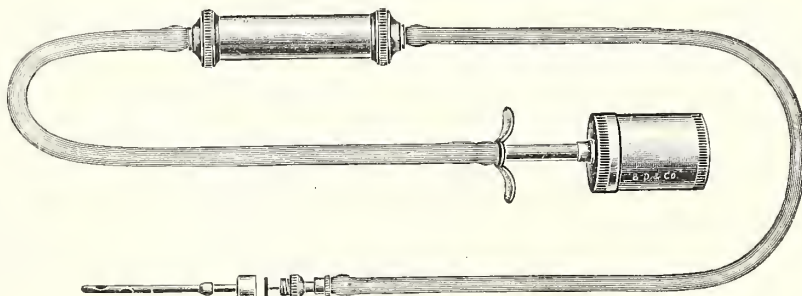


Alkali Special for Power Washers. Per bbl., \$21.45.

CATTLE TROCAR

No. 6526 Cattle Trocar, 4½ inches long with metal handle. Price each, \$2.10.

THE YALE MILK FEVER OUTFIT



The Milk Fever apparatus was first worked out by the Government Bureau of Animal Industry and is so effective in promptly restoring the health of valuable cattle that no veterinarian or stockman should be without one, ready for instant use.

The Yale Milk Fever Outfit is equipped with our famous Yale Hand Pump and the advantage is so great that it has almost entirely supplanted the rubber bulb type.

The milking tube has valve which prevents the milk being drawn into the tube and cylinder. It also enables operator to disconnect the outfit and leave the tube in the teat.

No. 7056 Yale Milk Fever Outfit (in paste board box). Price, \$3.25.

BUTTER TOOLS

BUTTER MOULDS, CALIFORNIA PATTERN

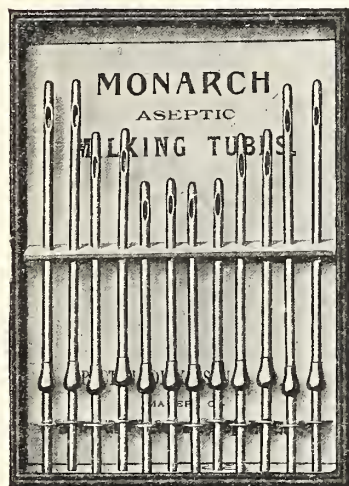
Maple, paraffin finish. Two parts held together with brass hinges. No. 1—Length, 7 inches; size, 1 lb. Price, 55c.

BUTTER LADELS

One piece of hardwood. Smooth surfaces; strong handle; convenient size; wide blade; spoon shape. Price, 25c.

BUTTER SPADES

One piece of hardwood; sharpened end and grooved surface; long smooth handle. Price, 15c.



Furnished in 2 inch, 3 and 3½ inch lengths. In ordering specify length you desire.

Monarch Self-Retaining Milk Tube, nickel plated. Price 25c.

No. 7030 Champion Adjustable Milking Tube, nickel plated. Price each, 40c.

CHAMPION TEAT PLUGS

The most effective remedy for hard milkers.

No. 7040 Self-Retaining Teat Plug. Price 25c.

No. 7044 Self-Retaining Teat Plug with Loop for tap, 30c.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DAIRY SUPPLIES

SANITARY STEEL
CLAD DAIRY PAILS

5A charcoal plate, mirror finish, four rivet ears. Extra heavy retinned bail, soldered inside and outside.

No. P7210—10-qt., 4x ----\$1.40
No. P7212—12-qt., 4x ---- 1.50
No. P7214—14-qt., 4x ---- 1.55
No. P7216—16-qt., 4x ---- 1.60
No. P9420—20-qt., 4x ---- 1.85

ALUMINUM
Galvanized Pails

Best quality 28 guage heavy cold rolled steel heavily coated with a special coating of spelter and aluminum.

No. G1110, 10 qt. 75c
No. G1112, 12 qt. 80c
No. G1114, 14 qt. 85c
No. G1116, 16 qt. \$1.00

WORLD'S BEST
DAIRY PAILS

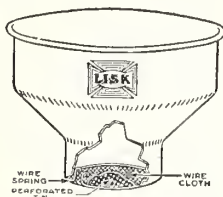
Flaring pattern
Charcoal Plate

No. 25, 10 qt. ---70c
No. 30, 12 qt. ---75c
No. 35, 14 qt. ---80c

CREAM
SETTING PAILS

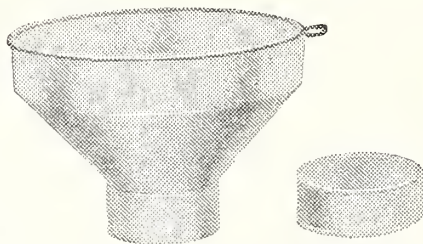
5A charcoal plate, mirror finish.

No. P17220—20-qt., 2x with guage and brass faucet. \$3.00.
No. 1120—20-qt., 2x without guage and faucet. \$1.50.
No. P1614—14-qt., without guage and faucet. \$1.25.

EXTRA HEAVY
Seamless Milk Strainers

Extra heavy seamless, retinned. Heavy wire around top; sanitary soldered. Equipped with circular piece of wire cloth with soldered edge; a circular piece of perforated tin and a wire spring to hold both in position. Cotton pads for use between wire cloth and perforated tin are furnished at an extra charge.

No. 19612. Price ----\$2.20
No. 19614. Price ---- 2.60

HEAVY SEAMLESS
MILK STRAINER

Heavy wire around top, best quality strainer cloth which can be easily replaced. Extra band for holding cloth on foot. Sanitary soldered.

No. 1932, 3 qt. Price -----\$1.10
No. 1934, 6 qt. Price ----- 1.35
No. 1936, 8 qt. Price ----- 1.50

GALVANIZED
STOCK
FEEDING
PAILS

Special extra heavy 24 guage cold rolled steel, with extra heavy 5/16 in. iron bail and heavy drop forged U. S. A. drop ears.

No. 9420, 20 qts.
\$1.60.

STRAINER
PAILS

5A charcoal plate, mirror, square strainer on breast.

No. P4212—12-qt., 2x
\$1.75.
No. P4214—14-qt., 2x
\$1.85.

STERILIZED COTTON
PADS

For No. 19612 and No. 19614 Milk Strainer.

Price for 100 Strainer Pads 85c.

Price for One Package of 300 Pads \$2.25.

MILK STIRRERS

No. 452 Plain Solid -----70c
No. 453 Perforated -----70c
No. 455 Milk Sampler -----60c

MILK SCALES

CHATILLON'S

IMPROVED CIRCULAR SPRING BALANCE
To Weigh 60 lb. by 1-10 lb.

This scale is made with a loose pointer which may be set any where on the dial by means of a thumb screw on the center of the pointer. Thus the weight of the pail is taken into consideration and the net weight of the milk is registered on the scale.

No. 270MD, 60 lb. Cap. Price \$7.50.

EXTRA HEAVY
MILK PANS

No.	Capacity (quarts)	Price
2906,	--- 4 3/4 ---	60c
2908,	--- 5 1/2 ---	65c
2910,	--- 6 ---	70c
2912,	--- 6 1/2 ---	80c

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DAIRY SUPPLIES

MILK BOTTLE BRUSHES



Osborne Bottle Brushes like illustration can be used for bottle washing as well as separator cleaning.

No. 72—Brush Part $2\frac{3}{4}$ in. Dia. Price Ea. 55c.

No. 73—Brush Part $3\frac{1}{4}$ in. Dia. Price Each 70c.

MACHINE BRUSHES



The No. 123 is one of the most popular Brushes on the market for machine use in washing milk bottles. The long brush part, of an extra stiff grade of hair retains its shape without matting.

No. 123—Brush Part 3 in. Dia. Price Each, 60c.

Test Tube and Separator Brushes



No. 811, Size $\frac{1}{2}$ -in. Price -----15c

No. 812, Size $\frac{3}{4}$ -in. Price -----15c

No. 813, Size 1-in. Price -----20c

No. 816, Size $1\frac{1}{2}$ -in. Price -----35c

CAN BRUSHES



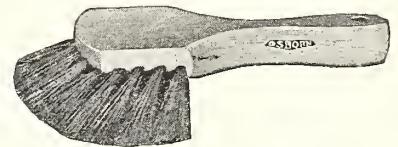
This is unquestionably the most serviceable milk can brush on the market. The flaring wings make it possible to get into the corners, insuring an absolutely clean can with the least possible labor.

SOLID BLOCKS, STAPLE SET, VERY FULL.

No. 08—Width of face 5 in., length of face 10 in. Price Each, 50c.

No. 414—Width of face, $5\frac{1}{2}$ in. Length of face $9\frac{1}{2}$ in. Large Heavily Filled Brush. Price each, 50c.

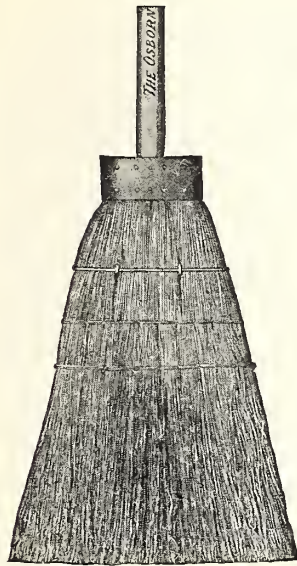
Handled Creamery Brushes



No. 416 Brush Part—5 in. wide, 4 inches long, Total length 10 inches. Price each, 40c.

No. 417—Brush Part—5 in. wide, 4 in. long. Total length $21\frac{1}{2}$ in. Price each, 60c.

Cooler Brush, Price Each -----35c



Jumbo Fibre

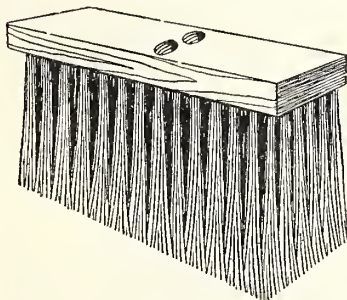
Barn and Warehouse
Broom. Price \$1.35

SO-BOSS
COW HOBBLE

Anti Kicking. Holds the cow from kicking during milking.

Price Each -----80c
Postage Extra

PUSH BROOMS



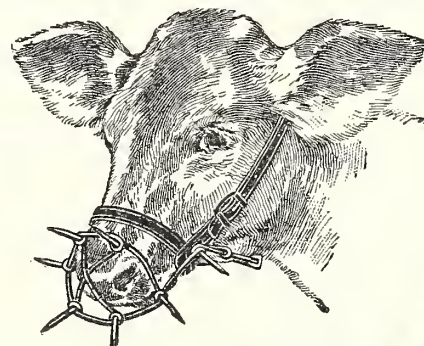
14 inch Palm Floor Fibre Broom with handle. Price \$1.15.

16 inch Palm Floor Fibre Broom with handle. Price. \$1.25.

Deduct 10c if wanted without handle.

BELLS, CHAINS AND HOBBLER

Cow Tie Out Chains, No. 00—30 feet -----\$1.00
Cow Tie Out Chains, No. 000—30 feet -----\$1.15
No. 15 Leather Cow Halters. Price each -----\$1.25
Cow Bell Straps, $1\frac{1}{4}$ -inx3 feet. Each -----65c
Cow Bells, No. 013 Long Distance. Each -----60c
Cow Bells, No. 012 Long Distance. Each -----50c



HOOSIER

Calf Weaner

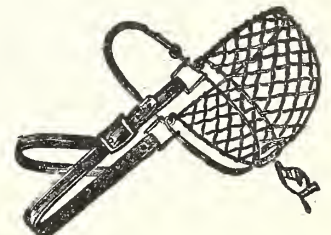
No. 1—For Calves

Price Each, 75c.

SHAW'S CALF
WEANER

No. 1—For Calves 60c

No. 2—For Yearlings
65c

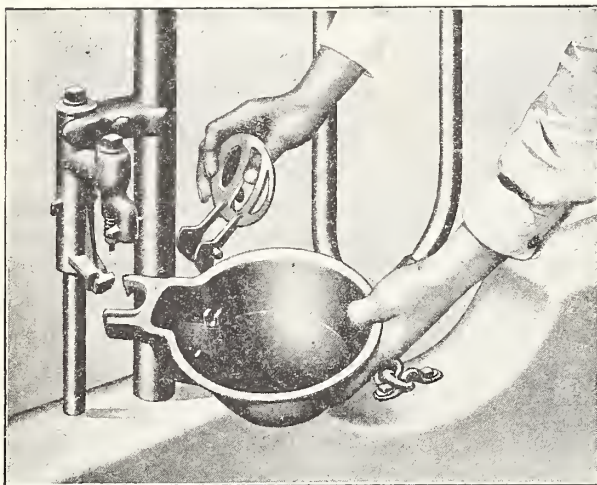


PRICES SUBJECT TO CHANGE WITHOUT NOTICE

BARN EQUIPMENT

LOUDEN AUTOMATIC WATER BOWLS

INCREASE THE MILK FLOW



Everyone knows that the more water a cow drinks the more milk she will yield; milk is about 87 per cent water. But many dairymen do not know how much MORE milk a cow will yield when she can drink all the water she wants, exactly WHEN SHE WANTS IT.

It is estimated that a good dairy cow should drink from 14 to 18 gallons of water every day. High producing animals require much more. They simply have got to have it if they are to give their maximum production of milk.

The bowl is made of heavy grey iron, and is tapped to connect with $\frac{3}{4}$ -inch pipe. The valve seat, valve rod, and spring are made of brass. The bowl is so made, it can be attached to wood or pipe manger or stalls. The Louden Bowl is detachable and this is done by lifting the nose piece to a verticle position, lift up bowl and slip it off. Put Louden Bowls in your barn, you will increase your profits and decrease your expense. Write for special booklet.

**Louden Water Bowl, complete ready for piping, \$4.50.
Special prices on complete outfit of bowls for barn.**

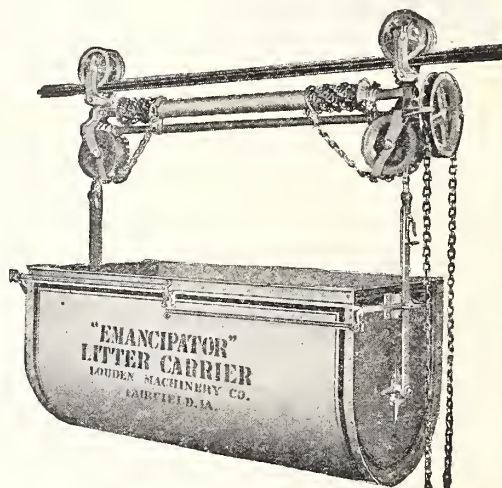
NOTE—We will gladly give estimates for complete installation of pipe and fittings necessary for equipping any barn with Louden Water Bowls.

Fig. 828—LOUDEN EMANCIPATOR LITTER CARRIER

Is the carrier that satisfies the man who wants the best. It operates on One Piece Double Bead Track. The tub is 48x27 $\frac{1}{2}$ x22 inches deep, holds 10 bushels, and is made of heavy galvanized iron. The hoisting device is the most powerful, yet very simple, it being a chain wheel shaft and the slack end taken up by an overhead shaft. A one-pound pull on the hand chain will raise and lower about 7 feet. There are 4 roller bearing track wheels, 4 inches in diameter. Extra strong swivel joints 2 $\frac{1}{2}$ inches in diameter allows the carrier to travel around curves freely without bending or getting out of order.

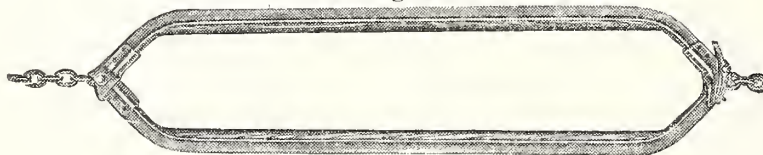
Fig. 828—Louden Emancipator Litter Carrier, weight 200 lbs. Price \$63.50

We will gladly furnish, upon request, plans and prices for full equipment for installation of Litter Carriers, Track, Hangers, Switches, Automatic Door Openers, also Stalls.



LOUDEN'S WOOD LINED STANCHION

Fig. 937



Louden's Wood Lined Stanchion, shown by Fig. 937, is decidedly the best stanchion of its class on the market. The latch is exceedingly simple. The plates to which the latch is pivoted are riveted to opposite sides of the upper end of one of the T steel bars. The upper end of the other T Bar is provided with a spur, over which the latch catches and by which the hinged side is held positively and securely in locked position. The plates are provided with diverging prongs, which always guide the side into latched position, and also form guards to prevent the cow's horns from opening the

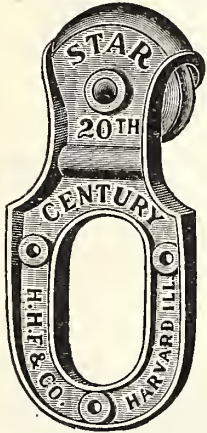
latch. The latch is easily and quickly operated by one hand. Besides this, it is made of a special shape of high carbon T steel, provided with a small rib. This rib adds considerably to its strength and prevents the wood strip from getting split or knocked off. Price, \$4.80.

For information on barn equipment not listed in this catalog, please write us and we will gladly supply you.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

BARN EQUIPMENT

No. 28 20TH CENTURY DOOR HANGER

**Roller Bearing for Round Track**

Made with both frame and hood of one heavy malleable piece. Strong enough for the heaviest doors. Cannot jump off the track. Hardened steel roller bearings.

No. 28 Twentieth Century Hangers, weight $6\frac{1}{4}$ lbs. Per pair \$2.25.

No. 1200 Twentieth Century Track in 2 foot lengths only including splice-brackets and stops. Price per foot, 22c.

CANNON BALL DOOR TRACK

**Standard 3-Foot Lengths**

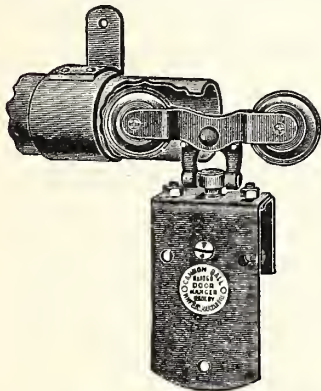
Being tubular in shape, the hangers operating inside of it are completely enclosed. Operates noiselessly and without friction. Bird and weather proof. The brackets and end stops are not priced with track.

No. 387 Track in 3 foot lengths. Price per foot 30c.

No. 682 Bracket for track. Price each, 22c.

No. 680 End Stop Bracket. Price each, 20c.

CANNON BALL DOOR HANGERS

**Roller Bearing**

The No. 384 varies slightly from the cut showing hanger, in that it has a loose pin so that door can be removed from the hanger. Pressed steel ball wheels, $2\frac{1}{4}$ inches in diameter. Cold Rolled Steel Roller Bearings. For Doors up to 400 lbs weight of 2 inch thickness.

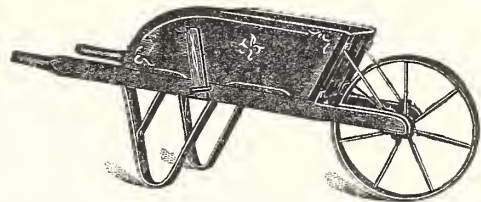
No. 384 Cannon Ball Hangers with Bolts, wt., $5\frac{1}{2}$ lbs. Price, \$2.40 per pair.

EXTRA WHEELS FOR BARROWS

No. 0 Wheel, $15\frac{1}{2}$ inch Diameter, $1\frac{3}{8}$ in. tread, 6 in. Width of Hub, for $\frac{1}{2}$ in. axle. Price \$1.35 each.

No. 1 Wheel, 16 inch Diameter, $1\frac{3}{8}$ inch Tread, 6 inch width of Hub, for $\frac{5}{8}$ inch axle. Price \$1.95 ea.

No. 1 AMERICAN GARDEN WHEELBARROW



These American Garden Barrows are made of wood and steel, which is combined in the simplest form to gain lightness and still maintain strength and correctness of design. The individual points of superiority are pressed angle steel sideboard holders, wheel, with 2 inch oval tire, solid steel axle, oval pressed steel legs, and 20 inch steel and malleable boxes. It is strong, light and well manufactured. Finished in vermillion, hand striped and varnished and is better finished than any garden Barrow made.

No. 1 American Garden Barrow, weight 50 lbs. Price \$8.75.

No. 2 American Garden Barrow, weight 56 lbs. Price, \$9.25.

K. & J. WHEELBARROWS

The K. & J. for Dairy Barns

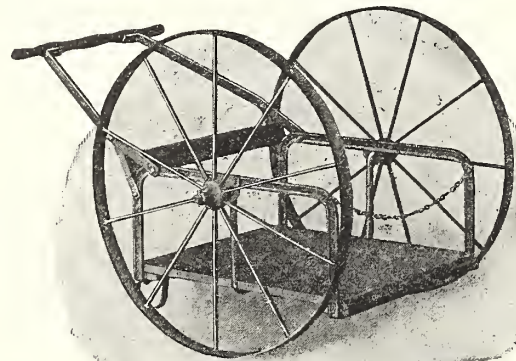


This wheelbarrow is the favorite with the Dairyman. Its capacity is approximately 4 cubic feet of dirt and due to its extreme depth both front and rear, will hold large quantity of liquid manure

without spilling. Depth at back is $8\frac{1}{4}$ inches; at front 13 inches. Width $24\frac{1}{2}$ inches. Length at top is $37\frac{3}{4}$ inches. Steel wheel $16\frac{1}{2}$ inches diameter, $\frac{1}{2}$ inch round spokes.

The K. & J Concrete, weight 74 lbs. Price \$9.50.

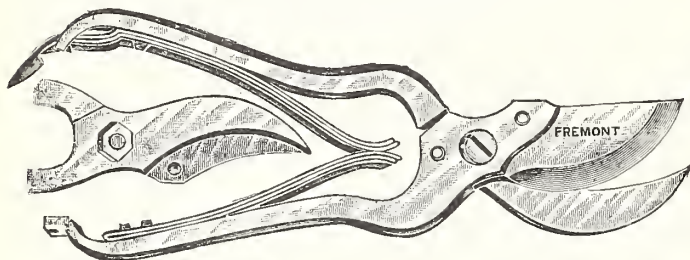
PLATFORM HAND CART



Platform Hand Cart, with 2-inch tires, wt., 95 lbs. Price, \$13.75.

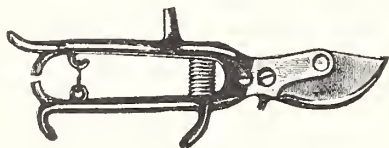
PRUNING SHEARS

PRUNING SHEARS



No. 105—8½ in. Oil tempered forged tool steel blade riveted to frame. Double brass spring; Bolt with ratchet nut; weight 1 lb., Price \$3.00

No. R10



9-in. Japanned malleable iron frame, hand brace and catch; coil spring, polished steel, screwed on; wt. 1 lb. Price 75c.

PRUNING SAWS



Straight Duplex—16-in. blade Price. -----\$1.75
Crescent—14-in blade. Price ----- 1.25
Crescent—16 in. blade. Price ----- 1.40

TRENTON HEDGE SHEARS



No. 100L—6 in. blade -----\$1.75
No. 101 — 9 in. blade ----- 2.75
No. 101 —10 in. blade ----- 3.00

BORDER SHEARS

No. 104—9 in. blade -----\$4.25
No. 106—9 in. blade ----- 4.25

CRONK BERRY HOOK



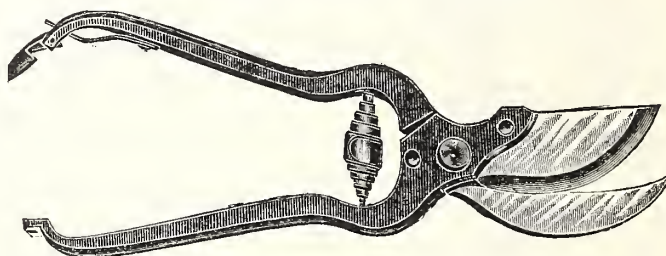
Handle 36 in. long. Price ----75c.

WATERS PATTERN LONG HANDLE TREE PRUNER



6 foot Waters Long Handle. Price -----\$1.85
8 foot Waters Long Handle. Price ----- 2.00
10 foot Waters Long Handle. Price ----- 2.25

No. 100 BOKER PRUNING SHEAR



No. 100—Black lacquered; forged steel frame; crucible steel polished blade riveted on; end catch and hoop on handle.

No. 100—7in. Weight ¾ lb. Price -----85c
No. 100—9 in. Weight 1 lb., Price -----\$1.00

BRANCH SHEARS

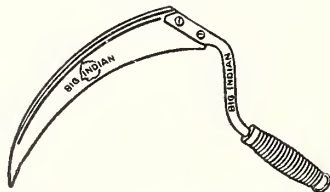
All about 3-foot handles.

Trenton No. 130—A very good shear. Price \$2.75.
No. 09½ Standard pattern for light work. Price \$1.60

PRUNING KNIVES

No. 9215, Price -----\$1.00
No. 6427, Price ----- 1.70

GRASS HOOKS



Big Indian. Price -----85c

GRASS SHEARS



No. V51 Village Blacksmith Grass Shears. Price, \$1.25.

No. 56 Grass Shears. Price \$1.

No. 52—Grass Shears. Price 85c.



Village Blacksmith No. 0 -----50c

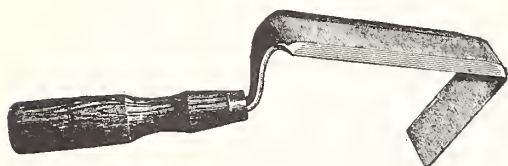


Village Blacksmith No. 3 ----75c
No. 7513 German Grass Hooks 40c

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

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GARDEN AND LAWN TOOLS

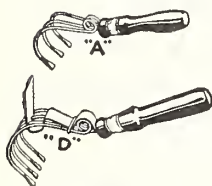


Hazeltine Weeder—Slight oval spring steel blade. Polished lower side, chisel pointed for digging, hardwood handle, 4½ in. long. Price, 40c.

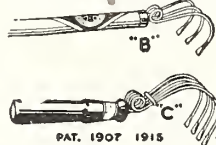


Simplex Simple Durable
Rapid Efficient Price, \$1.15

MAGIC WEEDER HOES



Style A
Price each 15c
Style B
Price each 25c
Style D
Price each 50c

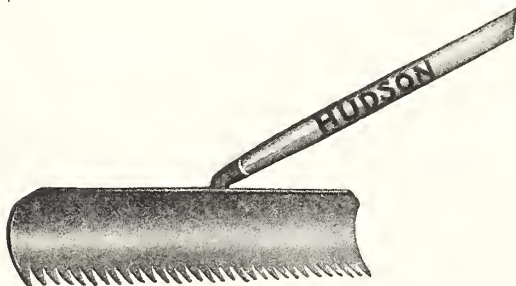


Style C
Price each 35c
Style G
Has 4 prongs
width 5 in.
length, 57 in.
Price each 85c

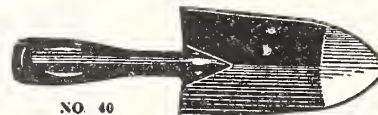
ALL-PURPOSE RAKE

For Dandelion, Garden or Lawn

The All-Purpose Rake is unequalled for removing yellow dandelions. When it is pulled across the lawn, the stems, leaves and blossoms are wedged between its teeth and easily pulled out. It is also a first class rake for general work. It will pick up the acorns, pebbles, small twigs, etc., which an ordinary rake will not touch, and will clean the lawn of cut grass and dead leaves in better shape than is possible by any other means. It is self cleaning. A single backward stroke cleans the rake. Price \$1.15.



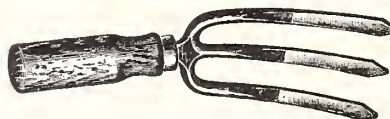
GARDEN TROWELS



NO. 40

NO. 41
Solid blade, socket and handle of one piece forging. A practical indestructible trowel.

No. 40. Price ----- 25c.
No. 41 Transplanting. Price 25c.



No. F30 Spading Fork

Price ----- 75c

EXCELSIOR



Excelsior—Weight ½-lb. Price, 20c.

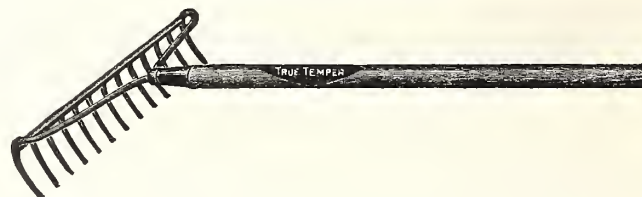
NORCROSS ADJUSTABLE CULTIVATOR HOE



Five prong for regular garden work, 4 ft. handle; weight 4 lbs. Price, \$1.25.

3 prong "Midget," 9-inch handle, for flowers or close hand work; weight 1 lb. Price, 55c.

GARDEN RAKES



Steel curved teeth; solid end bows; the very best garden rake.

No. B12—12 tooth, \$1.30. No. B16—16 tooth, \$1.50.
No. B14—14 tooth, \$1.40.

GARDEN HOES

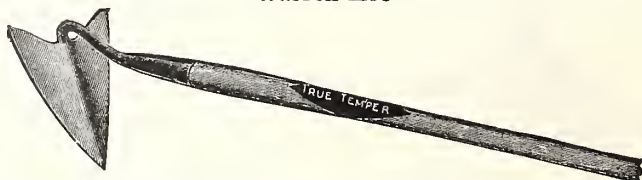


No. 1 Geneva Socket Pattern Garden Hoe

No. 1—Geneva Socket pattern garden hoes, assorted 6½ to 7½ inch blades, XX selected handles; gold bronze finish. Price, \$1.25.

No. 1—Oxford Socket pattern, 6½ to 7½-inch blade X selected handle. Price, \$1.10.

Warren Hoe



Warren Hoes—Polished steel blades, socket pattern, 4 1/3 foot handle.

No. W7—7-inch blade, \$1.40.

No. W7½—7½-inch blade, \$1.45.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

COLDWELL LAWN MOWERS

No. 2, PLANET JR. LAWN EDGER



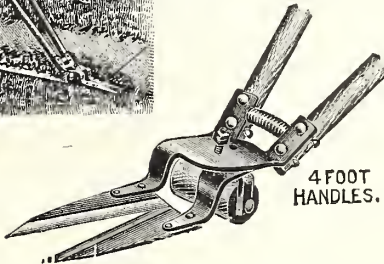
A first Quality improved edger, strong and durable. It's a pleasure to use a good tool of this make.
No. 2 Planet Jr. Lawn Edger, \$2.00.

THE N. W. LAWN TRIMMER \$2.50

No Stooping—Lame Backs or Cramped Hands



Now it's a real pleasure to keep the lawn neatly trimmed. Walk along in a natural position — trim along the sidewalks — around shrubbery, trees and fences — in all places not reached by the lawn mower, quicker, easier and better than by any other means.



Every home with a lawn should have this handy trimmer.

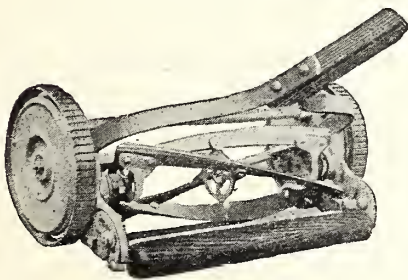
After pushing the lawn mower, it is a relief to finish the job this easy way. The long, substantial handles of the N. W. Lawn Trimmer enable you to walk in an upright position while you clip, and the roller makes it easy to operate even by a child. A real labor saving tool.

Frame and shears are entirely of steel. Shears are self-sharpening and need no attention. Handles are of close grained hickory, smoothly finished, sturdy construction, assuring long wear.

N. W. Lawn Trimmer. Price each, \$2.50.

COLDWELL LAWN MOWERS

GOLDEN GLOW (Plain Bearing)



A very light weight, easy running mower. Excellent value at price asked.

Blades: Four crucible steel.

Gears: Pinion and Sliding pawl drive.

Bearing: Parallel. Adj. Split Bronze Bushings.

Wheels: 8 in. Solid Style.

Bottom Knife: Flat Crucible Steel Blade, self-sharpening.

Golden Glow, 14 inch cut. Price ----- \$9.85

Golden Glow, 16 inch cut. Price ----- 10.35

LENOX (Ball Bearing)

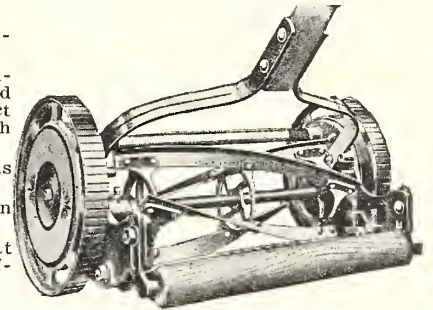
Blades: Four crucible steel.

Gears: Internal enclosed pinion and sliding pawl. Direct drive from both sides.

Bearings: Same as in Sunset.

Wheels: 9 in. open style.

Bottom Knife: Flat crucible steel, self-sharpening.



Lenox, 14 inch cut. Price ----- \$13.50

Lenox, 16 inch cut. Price ----- 14.00

SUNSET (Ball Bearing)

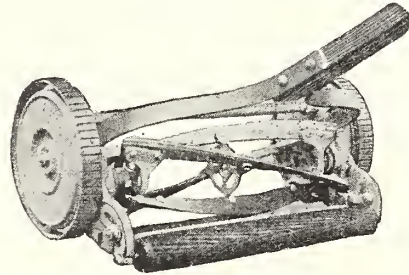
Blades: Four Crucible Steel.

Gears: Pinion and sliding pawl drive.

Bearings: Balls, finest drop forged steel, case hardened. Cones made from steel shafting, turned and ground for true finish.

Wheels: 8 in. solid style.

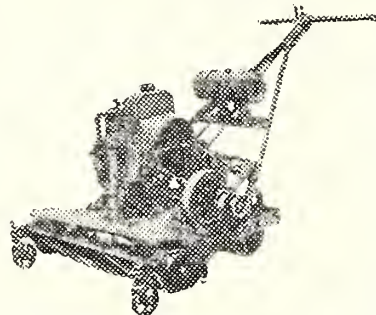
Bottom Knife: Flat crucible steel. Blade self-sharpening.



Sunset Mower, 14 inch cut. Price ----- \$12.25

Sunset Mower, 16 inch cut. Price ----- 12.75

COLDWELL'S MODEL "L" MOTOR LAWN MOWER



The Coldwell Model "L" Motor Lawn Mowers and Roller, twenty-five inch cut, has been designed with a view of combining the extreme flexibility of the hand lawn mower with the large cutting capacity, rolling feature and other advantages and conveniences which can be obtained only with a motor mower.

This mower is adapted for use on private lawns, parks, cemeteries, public grounds and for fine cutting on tennis courts and bowling greens.

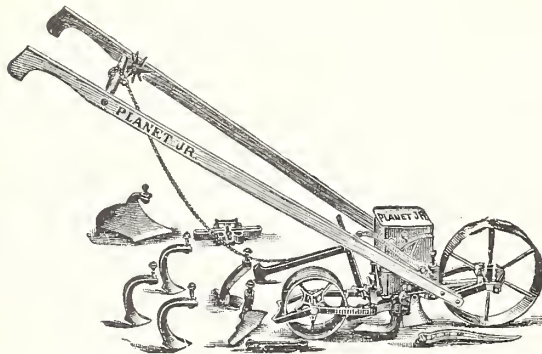
Model "L" is offered to fill the need for a practical, motor driven, hand controlled, lawn mower with plenty of reserve power which will make it possible to cut close up to and around trees, shrubbery, walks and driveways, to operate efficiently on the smaller areas of lawn. The Coldwell is a true motor mower in the strictest sense of the word. The cutting knives which are positively controlled and operated by power transmitted directly from the motor independently of the drive roller, are an integral part of the machine and have been designed and tested for their special function under power.

Send for special booklet on this mower.

Price on Application

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

PLANET JR. TOOLS



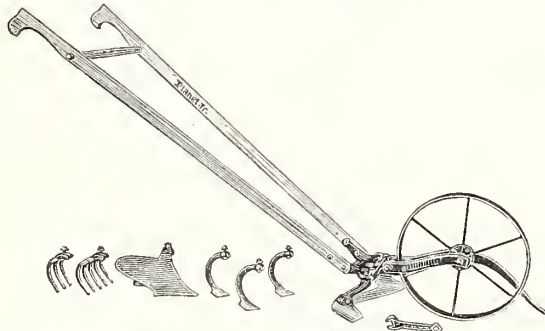
No. 4 PLANET JR. HILL AND DRILL SEEDER, WHEEL HOE, CULTIVATOR AND PLOW

No. 4 Planet Jr. combines in a single convenient implement a capital hill-dropping seeder, a continuous row seeder, an admirable single wheel hoe, a cultivator and a plow. Its work as a seeder is marvelous. It sows in continuous rows with the greatest uniformity, and also drops with accuracy in hills, four, six, eight, twelve or twenty-four inches apart. The feed is automatically stopped by simply raising the handles. Capacity $2\frac{1}{2}$ quarts.

Equipment: One pair 6-inch hoes, one garden plow; three cultivator teeth; one leaf lifter.

Weight, packed, 49 pounds. Price, complete, \$18.00.

No. 4 Planet Jr. as Drill only, \$14.25.



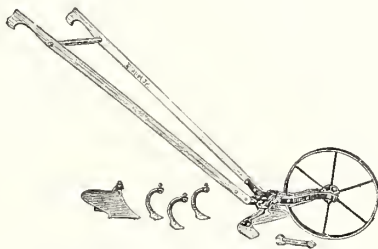
No. 16 PLANET JR. SINGLE WHEEL HOE, CULTIVATOR, RAKE AND PLOW

Packed weight, 26 lbs. Steel frame. 15-inch steel wheel.

Equipment: One pair of 6-inch hoes; three cultivator teeth; one large garden plow.

All oil tempered. One 7-inch rake, One 4-inch rake, one leaf guard.

Price, \$9.00.

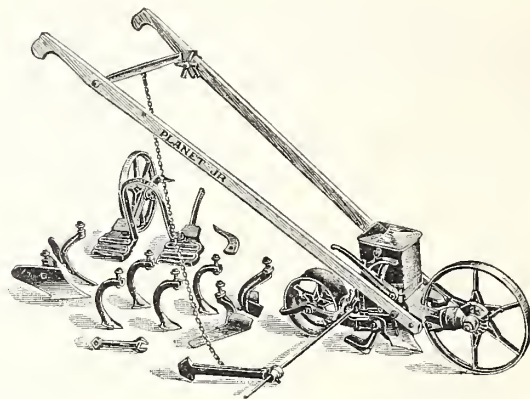


No. 17 PLANET JR. SINGLE WHEEL HOE

You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work.

Weight, 24 lbs. Price, \$7.75.

No. 17½ Planet Jr. is the No. 17 Cultivator less the plow. Weight, 22 lbs. Price, \$6.75.

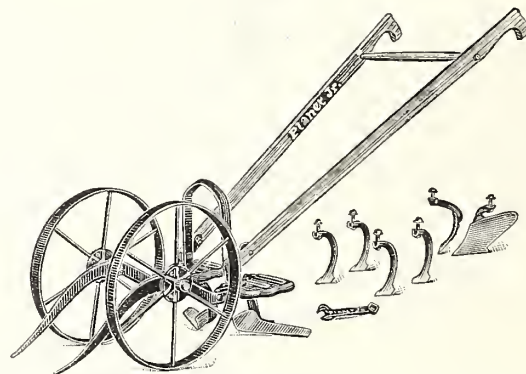


No. 25 PLANET JR. HILL AND DRILL SEEDER, DOUBLE WHEEL HOE, CULTIVATOR AND PLOW

This combined Hill and Seed Drill Seeder and Double and Single Wheel Hoe is fitted with $11\frac{1}{4}$ -inch wheels. Hopper holds $2\frac{1}{2}$ qts. It combines in a most practical way the Planet Jr. No. 4 Drill and No. 12 Double Wheel Hoe. The change from drill to wheel hoe and back again is quickly made, and the entire combination is one we can heartily recommend and guarantee satisfactory.

Equipment: One pair 6-inch hoes; four cultivator teeth; one pair plows; two leaf lifters.

Weight, packed, 59 pounds. Price complete, \$21.50.



No. 12 PLANET JR. DOUBLE WHEEL HOE, CULTIVATOR AND PLOW

The No. 12 is the most popular Double Wheel Hoe we make. It can be used by man, woman or boy. The attachments with it are what gardeners use most, and the short hoes, rakes, and any of the attachments shown can be added at any time. You'll be astonished how easy it is to save time, labor, money, and get bigger crops if you use it.

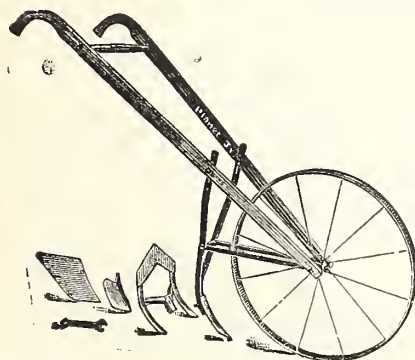
Equipment: One pair 6-inch hoes, four cultivator teeth, one pair plows and one pair leaf lifters. Weight, packed, 32 lbs.

Price, \$10.75.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

PLANET JR. GARDEN TOOLS

No. 119 PLANET JR. GARDEN PLOW AND CULTIVATOR



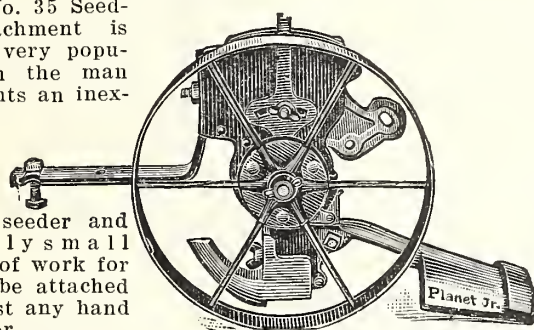
A light, strong and serviceable Garden Plow, Cultivator, Hoe and Rake. Made of steel throughout. Wheel is 24 inches in diameter. Equipment includes plow, sweep, reversible shovel, rake and wrench. Weight 17 lb. Price, \$4.75.

No. 35 PLANET JR. SEEDER ATTACHMENT

The No. 35 Seeder Attachment is proving very popular with the man who wants an inex-

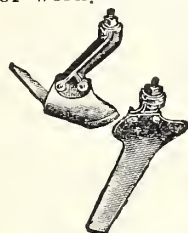
pensive seeder and has only small amount of work for it. Can be attached to almost any hand cultivator.

Price, \$6.50.



EXTRAS FOR PLANET JR. HAND MACHINES

To get the most out of your Planet Jr. hand tools, keep on hand some of these "extra" attachments for special kinds of work. Each one you add gives practically an additional machine.



S100 & S101 Hoes

The hoes are of new improved design. The blades are made of extra heavy stock, are carefully oil tempered and polished, holding a sharp cutting edge for a long time.

S100-S101 Hoes—4½ in. Price per pair, \$1.50; 6 in. Price per pair, \$1.60.



Disc Hoes

The Discs are splendid for shaving the weeds away from small plants or slightly working the soil up to the larger ones.

Price Per Pair ----- \$4.00



Cultivator Teeth

The Cultivator Teeth—with their narrow necks and wide heads for cutting weeds—are splendid for deep, rapid tillage, and are adjustable in pitch. A single tooth is valuable for marking out rows for large seeds, setting plants, etc.

Price Each ----- 50c

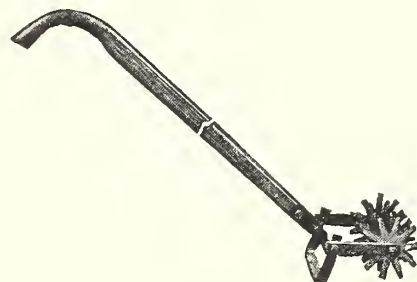


Rakes

The Rakes, of varying widths, are used in many different ways. When the plants first break through, cultivate the surface lightly, using the 3-tooth or 5-tooth, or both, as width of row—6-15 inches—may require. The Rakes also produce and maintain a dust mulch to preserve moisture; and are also valuable for preparing a seed bed.

3-tooth Rakes, Price Per Pair---\$1.60
5-tooth Rakes, Price Per Pair--- 2.10
7-tooth Rakes, Price Per Pair--- 2.90

PRICES SUBJECT TO CHANGE WITHOUT NOTICE



PLANET JR. STAR PULVERIZER, LEVELER AND WEEDER

This new tool is especially adapted for preparing the seed bed. After the ground has been plowed with the Wheel Hoe plow or spaded, this Pulverizer will be found of great value in smoothing and fining the surface of the soil, putting it in the best possible condition for the seed planter. It is much more thorough and rapid in its work than a ordinary garden rake, thoroughly pulverizing lumpy soil. Use like a carpet sweeper or vacuum cleaner with sufficient pressure to cut the lumps and thoroughly pulverize the soil. The rear blade cutting 8 inches levels the ground perfectly. After the crops are started it may be used between the rows as a weeder or as a crust breaker, leaving a fine mulch. It is a great tool for the small garden, while the vegetable grower will find many uses for it, especially under the laterals in overhead irrigation. Works equally well both forwards and backwards.

Weight 6 lbs. Price \$3.25.



Plows for Double Wheel Hoe

The Plows can be used together, with the points touching to open a deep, broad furrow for manure, fertilizer, potatoes, etc.; or one plow alone can be used with the single wheel attachment for marking out, opening a narrow furrow for peas, beans, or corn and like seed. Placed with the points out, they can be used for covering, and hilling up.

Price Per Pair ----- \$1.70



Plow for Single Wheel Hoe

The Plow has a landslide and will turn a good furrow. It is correctly designed and heavy enough to do substantial work.

Price ----- \$1.65

WRENCHES. DON'T WAIT UNTIL YOU ARE IN A PINCH FOR A WRENCH: ALWAYS HAVE AN EXTRA ONE ON HAND.

No. H4—Takes 3/8 to 1/2 inch bolts.

Price Each ----- 30c

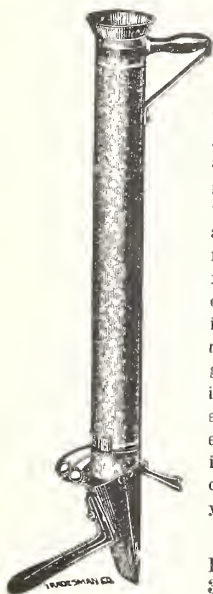
NOTE.—All Attachments on this page will fit Planet Jr. Single and Double Wheel Hoes and Combined Seeders and Wheel Hoes, excepting No. 119.

HAND POTATO AND CORN PLANTERS

THE EUREKA
POTATO PLANTER

A Tube Planter with self-locking jaws and a broad adjustable depth gauge. The object of the tube is to obviate the necessity of raising the planter for the purpose of depositing the potato in the beak, which makes it an easy and good way of planting potatoes. The operation of this planter is very simple and it cannot get out of order; if you try one you will like it.

Eureka Potato Planter, net weight 3½ lbs. \$2.00.

THE PINGREE
POTATO PLANTER

Simple, strong, durable, easy to operate, has self-locking jaws and adjustable depth gauge. At one operation the holes are made, seed dropped and covered. Plants uniformly any depth desired. It will pay you to try one of these ingenious labor savers.

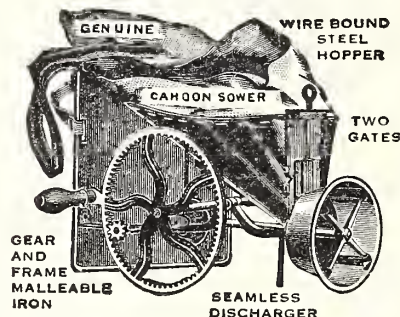
Pingree Patent Potato Planter, net weight 3 lbs. \$1.35.

THE ROTARY
CORN PLANTER

A one-hand planter, extremely accurate of drop, due to the novel design of the seed plates and steel spring cut-off. Simple, strong and durable. No tools required to make adjustments. Rotary Corn Planter, wt., 6 lbs. Price, \$2.75.



CAHOON BROADCAST SEEDER

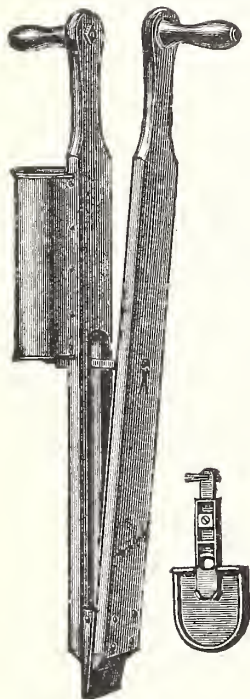


CAHOON — The standard broadcast seed sower of the world, made of steel, iron and brass and with ordinary care will last a lifetime. This is the most popular and best built seed sower, and has a force feed and does excellent work. Instructions with each machine. Weight 9 lbs.

Price, \$5.50.

THE ACME
CORN PLANTER

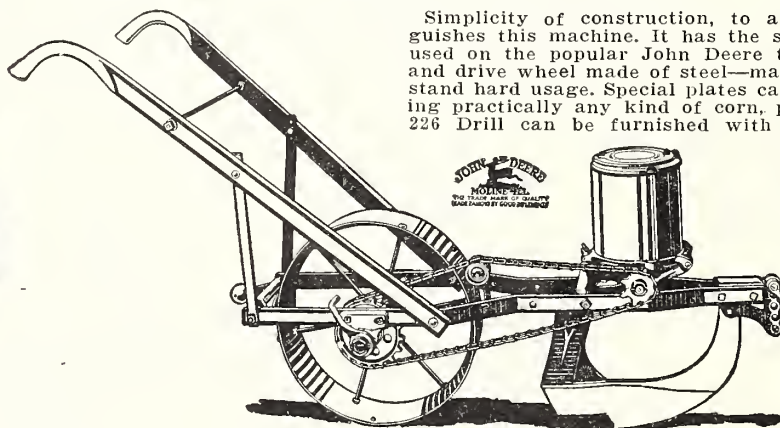
A two-handed planter, light, strong and durable. Especially adapted for planting in heavy, cloddy or stony soils. Will drop seed ranging from popcorn to large kidney beans. Weight 5 lbs. \$1.35.



JOHN DEERE No. 226 ONE-HORSE CORN DRILL

Simplicity of construction, to a marked degree distinguishes this machine. It has the same accurate drop as is used on the popular John Deere two-row planters. Frame and drive wheel made of steel—machine is durable and will stand hard usage. Special plates can be furnished for planting practically any kind of corn, peas, beans, etc. The No. 226 Drill can be furnished with either fertilizer or pea attachments. Pea attachment will plant peas in the same hill with the corn or alternately with the corn.

John Deere No. 226 One-Horse Corn Drill, Weight, 111 lbs., as illustrated. Price \$25.00 Add for Marker for above if wanted. Price, \$2.00.



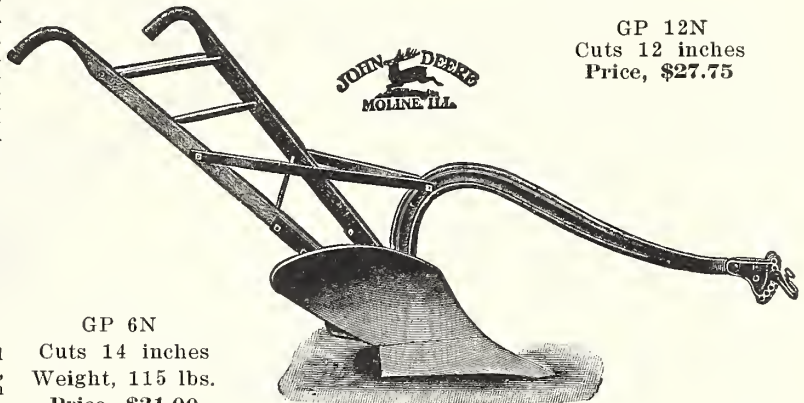
JOHN DEERE NEW TURF AND STUBBLE PLOW—STEEL BEAM

This series of plows is made upon a new theory of plow surface, cut and turn. They embody all the excellencies of high-grade plows. The furrow-slice is lifted and carried unbroken along the surface of the plow bottom until it reaches the wing of the moldboard, where it is inverted, whereby the second turning and pushing forward of the dirt in front of the plow is avoided. This principle increases the scouring qualities, effects a saving in draft for the team, and leaves a clean furrow.

The turf and stubble plows of this series have a moldboard with a long, easy turn, which makes the plows easy draft and equally adapted for old ground or sod. In the latter, they lap the furrows with great regularity and leave ground in good condition for the harrow.

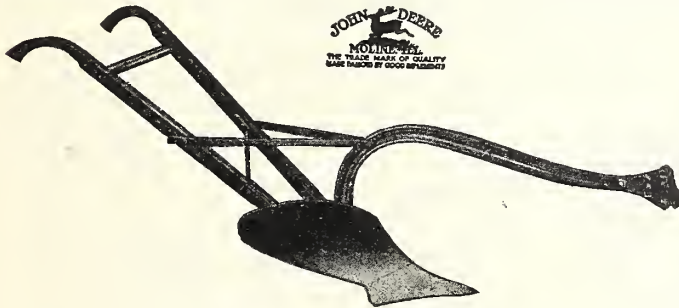
Steel Frame—Hardened soft-center steel share, double shin.

Hardened soft-center steel landside, chilled slip heel; hardened soft-center moldboard, double shin; double beaded steel beam, high curve.



GP 12N
Cuts 12 inches
Price, \$27.75

GP 6N
Cuts 14 inches
Weight, 115 lbs.
Price, \$31.00



JOHN DEERE BANTAM STEEL PLOW

This is a light and graceful one-horse plow for general cultivating and garden work. It is very strong and durable. Has hardened soft center moldboard and a steel share. Positively the best turning moldboard we have ever seen on a small plow.

8-inch Steel Beam Bantam Plow, cuts 8 inches; weight, 65 lbs. Price, \$15.50.

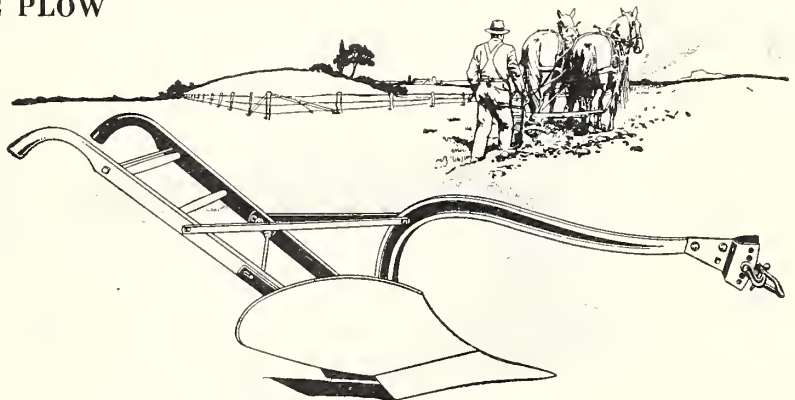
10-inch Steel Beam Bantam Plow, cuts 10 inches; weight, 77 lbs. Price, \$20.00.

Above With Extra Share

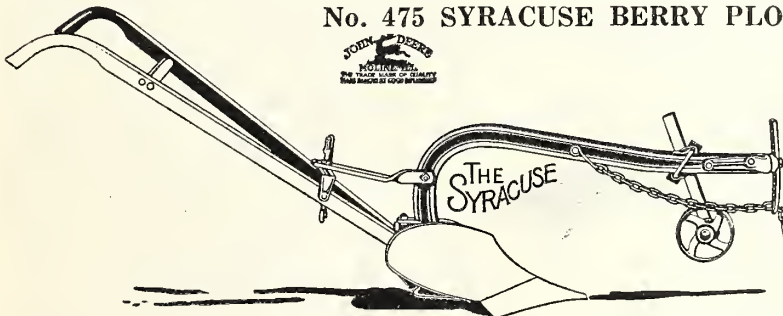
JOHN DEERE GENERAL PURPOSE PLOW High Landside

This plow is noted for its long, wide easy turn Moldboard, so shaped that the turf is completely turned under and all trash well covered. With High Hardened Steel Landside and full length slip shoe, Wrought steel frame, High curved Double-beaded steel beam, Hardened soft center steel, Moldboard and Share. These plows are built to work in old ground, stubble or tame sod, where the soil is of sandy composition.

MP 14—Cuts 14 inches
Weight, 123 lbs. Price, \$31.50



No. 475 SYRACUSE BERRY PLOW



For work in small orchards or berry fields this plow is unsurpassed. The handles are adjustable and swivel in either direction, avoiding contact with vines or trees. The dial clevis and chain works perfectly in giving the plow sufficient land. Chilled moldboard, landside and share. Weight 97 lbs. Price, \$19.00.

NOTE—Price does not include guage wheel as shown in illustration.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

WALKING AND TRACTOR PLOWS

SYRACUSE CHILLED PLOWS—STEEL BEAM

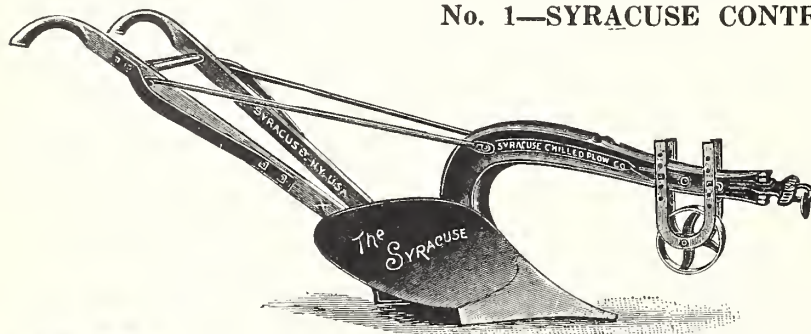
The plows of this series have a sloping landside, and moldboard of special design as to produce light draft and adapt the plows to either sod or stubble plowing. Strength with simplicity has been kept in mind in their construction as well as quality of material, the result being that these chilled plows are an improvement on all plows of this character heretofore manufactured. The share and shin piece is combined, a fresh cutting edge where it is most needed being thus obtained with each new share.

NOTE—Guage wheels and cast jointers are extra. We also carry in stock Syracuse Side-Hill Plows in 10 and 12-inch sizes.

WITH EXTRA SHARE as priced.

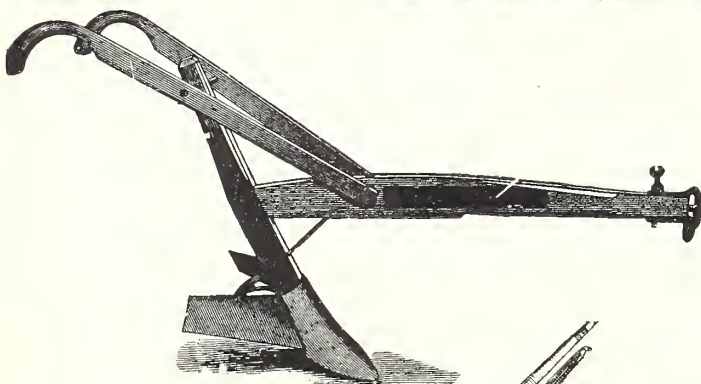
No. 1466—Cuts 8 inches; weight, 64 lbs. Price \$14.50	No. 1463—Cuts 12 inches; weight, 101 lbs. Price \$23.50
No. 1465—Cuts 9 inches; weight, 72 lbs. Price 17.50	No. 1462—Cuts 13 inches; weight, 121 lbs. Price 25.00
No. 1464—Cuts 10 inches; weight, 81 lbs. Price 20.50	No. 1461—Cuts 14 inches; weight, 127 lbs. Price 26.00

No. 1—SYRACUSE CONTRACTOR'S PLOW



Hard iron wearing parts. Extra heavy beam, share and strip. Steel wheel frame. Loop handle wear irons. Will turn a furrow 5 to 9 inches deep, and 12 to 15 inches wide. An excellent plow for general grading purposes.

No. 1—Syracuse Contractor's Plow; weight, 205 lbs. Price, \$38.25.

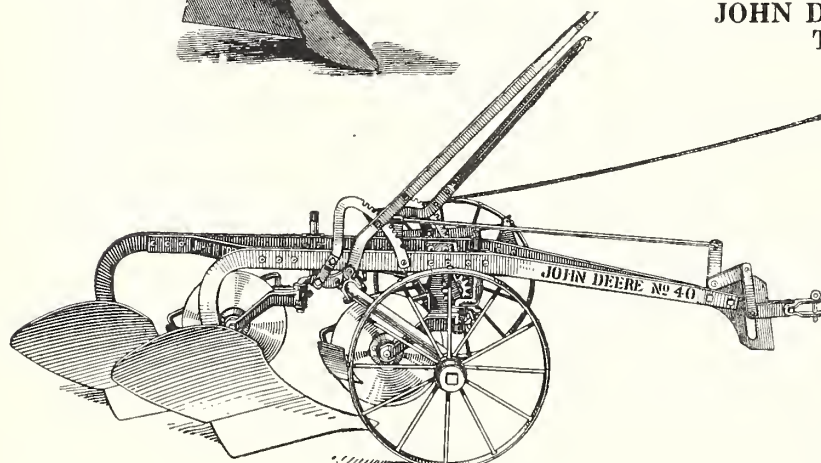


WOOD BEAM WING SHOVEL PLOW

These are admirable tools for hilling potatoes, etc. Have adjustable wings which can be let out to any desired angle by means of punched spread-rods, and can be worked with one wing or the two wings simultaneously at different angles.

Wood Beam, Wing Shovel Plow; weight, 35 lbs. Price, \$7.00.

Steel Beam, Wing Shovel Plow; weight, 40 lbs. Price, \$7.25.

JOHN DEERE NO. 40 TRACTOR PLOW
The "40" Fits the Fordson

The only built-for-the Fordson plow with the great draft-reducing combination of self-adjusting hitch and rolling landside. The hitch is always automatically right at all depths; the bottoms always run true and level and all of the weight is wheel carried; therefore, the "40" pulls exceptionally light. Special steel makes this light-weight plow a giant in strength. Beams guaranteed not to bend or break. Simple, positive power lift.

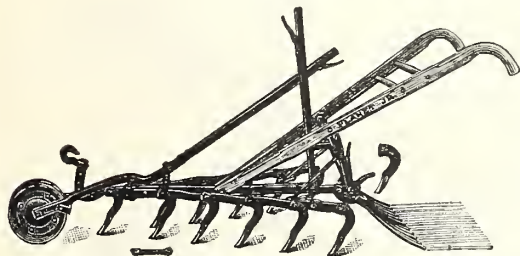
No. 40 John Deere Tractor Plow. Weight 490 lbs. Price, \$116.00.

No. 41 Single Bottom 16 inch cut Tractor Plow. Weight, 406 lbs. Price, \$104.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

HORSE CULTIVATORS

12-TOOTH HARROW WITH WHEEL AND PULVERIZER



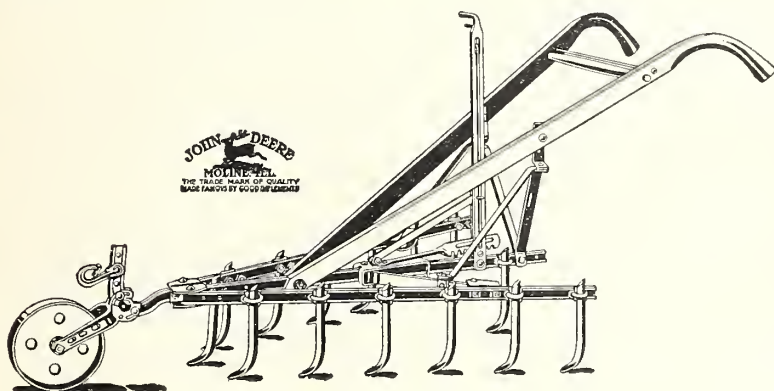
The combination of teeth and pulverizer leaves the ground in the finest condition. The lever wheel enables the operator to set the teeth exactly to any depth desired, making delicate work not only possible, but very easy. It is invaluable in narrow rows and for fine work in market gardens, and close work on the farm. Used extensively in strawberry culture.

Planet Jr. 12-Tooth Harrow, complete, weight, 75 lbs. Price, **\$18.00.**

Planet Jr. 12-Tooth Harrow, without Pulverizer. Price, **\$14.75.**

Planet Jr. 12-Tooth Harrow, without Pulverizer, but with plain wheel. Price, **\$13.75.**

JOHN DEERE FOURTEEN-TOOTH STEEL COMBINATION CULTIVATOR AND HARROW



The John Deere Fourteen-Tooth Steel Combination Cultivator and Harrow is adapted for close work among very small plants. It stirs the soil thoroughly, but does not throw any on the plants.

The steel teeth are reversible, each one having a small cultivator tooth forged on one end, the other being straight and sharp.

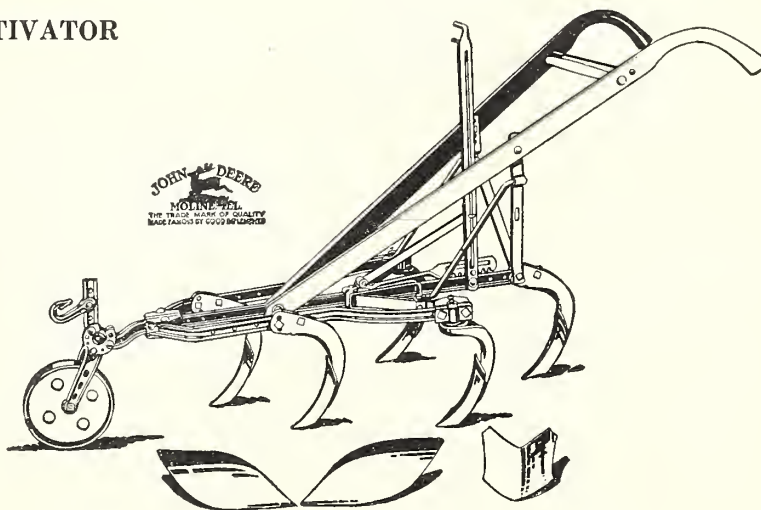
No. 320 John Deere 14-Tooth Cultivator with Gauge Wheel; wt., 67 lbs. **\$10.75.**

DEERE STEEL FIVE TOOTH CULTIVATOR AND HORSE HOE

These implements, specially adapted to the use of market gardeners, as well as for general use, are made in the most substantial manner. The frames are entirely of steel and malleable iron. The expansion device is a combination of two arms which expand or contract the frame by the action of the lever, at the same time bracing the frame and making the tool very rigid, expansion lever is of good length and easy to operate.

Wrought steel braces extend from the handles to the expanding bars, being so attached to the latter that their full service is secured, regardless of the position of the expanding bars.

The skovels on the five and seven-tooth are adjustable and the horse-hoe blades reversible, which admits of a variety of work.



No. 306—Five Tooth Cultivator with lever and gauge wheel. Weight 61 lbs. Price, **\$10.75.**

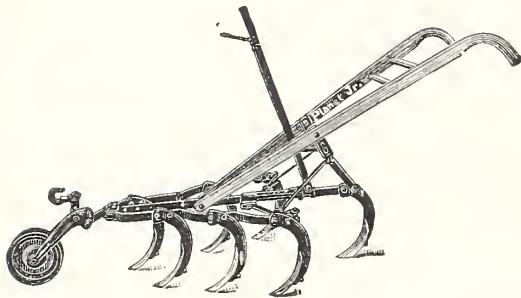
No. 308—Five Tooth Cultivator with lever, gauge wheel and horse hoe attachment. Wt., 67 lbs. **\$13.00.**

No. 314—Seven Tooth Cultivator with lever, gauge wheel. Weight, 66 lbs. Price, **\$12.50.**

No. 316—Seven Tooth Cultivator with lever, gauge wheel and horse hoe attachments. Wt., 81 lbs. **\$16.00.**

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

HORSE CULTIVATORS

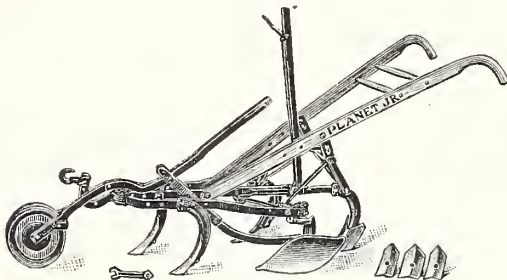
No. 83 PLANET JR. SEVEN-TOOTH
CULTIVATOR

The No. 83 Planet Jr. Seven-Tooth Plain Cultivator, in the opinion of those who ought to know, is the coming one-horse cultivator, as it has seven teeth instead of five. The teeth are $2\frac{1}{4}$ inches wide, and their work is finer and more thorough than that of the five-tooth cultivator. The machine is a favorite where fine cultivation is wanted. It finishes all rows up to 42 inches apart.

Weight, 69 lbs. Price, \$15.50.

No. 8

PLANET JR. HORSE HOE AND CULTIVATOR



Packed weight, 83 lbs.

As used for plowing toward the row and for hilling.

Equipment: Four 3x8-in. cultivator steels; one 4x8-in. cultivator steel; two 6-in. hillers; one 7-in. shovel; lever wheel (steel); lever expander; depth regulator.

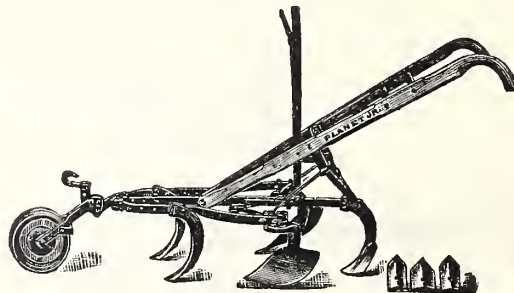
Planet Jr. Horse Hoes are more widely known and bear a higher reputation than any horse hoes ever made. Their first appearance was hailed with delight by thrifty farmers, and they have been held in increasing esteem ever since by those who have learned their strength and other merits, by use. The various tools are the result of a thorough knowledge of both farming and manufacturing, and naturally they have attracted the attention of brother farmers throughout the world.

The hillers or plows are reversible, and used either pointed or rounded edge foremost. They work well as plows and throw both to and from the rows; and turned end for end are invaluable for hoeing. The slanting rounded edge may then be run close to the plants without danger to the roots; when thus reversed they cut away from the row just like a disc.

The wheel lever operates the runner which controls the depth and steadies the machine. Adjustment is instant.

Planet Jr. No. 8 Horse Hoe and Cultivator .Price \$17.50.

No. 9 PLANET JR. HORSE HOE



With Steel Wheel

Packed weight, 70 lbs.

Equipment: Four 3x8-in. cultivator steels; one 4x8-in. cultivator steel; one pair 6-inch hillers; one 7-inch shovel; lever expander.

No. 9 Horse Hoe has a plain wheel instead of the lever wheel.

It has become popular because of its strength, lightness, easy change of width, and perfection of work, and while not so handy as a tool with a lever wheel, it is a favorite. All steels especially hardened and efficient.

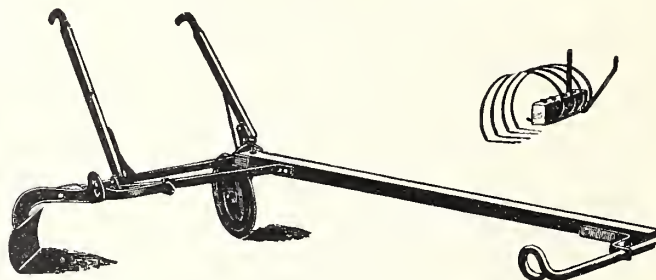
The handles are adjustable in height and also sidewise, and the equipment as shown in the cut offers a tool which will always be useful.

The Planet Jr. Combined Horse Hoe and Cultivator is in use throughout the civilized world. It is so strongly built as to withstand incredible strain, yet it is easy to handle. One can cultivate to any reasonable depth, and adjust for any useful width. Every part is perfected to make the tool acceptable to the intelligent farmer.

The steel wheel is a great improvement over cast-iron wheels. The tire is pressed into position and electrically welded.

No. 9 Planet Jr. Horse Hoe. Price, \$15.50.

ONE HORSE BERRY HOE



The Syracuse Berry Hoe is a wonderful labor-saver in the culture of berries and grapes. The Hoe is easily guided in and out around the posts and vines by the disc castor wheel, to which the handle is attached. The horse is hitched to one side of the pole, with plenty of room for the plow to work under the vines or bushes. By changing the position of the blade the soil can be thrown toward or away from the vines. Adjustable to any width row.

Weight 125 lbs. Price, \$23.00.

Cultivator and spring tooth attachments. Price \$7.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

CULTIVATORS AND HARROWS

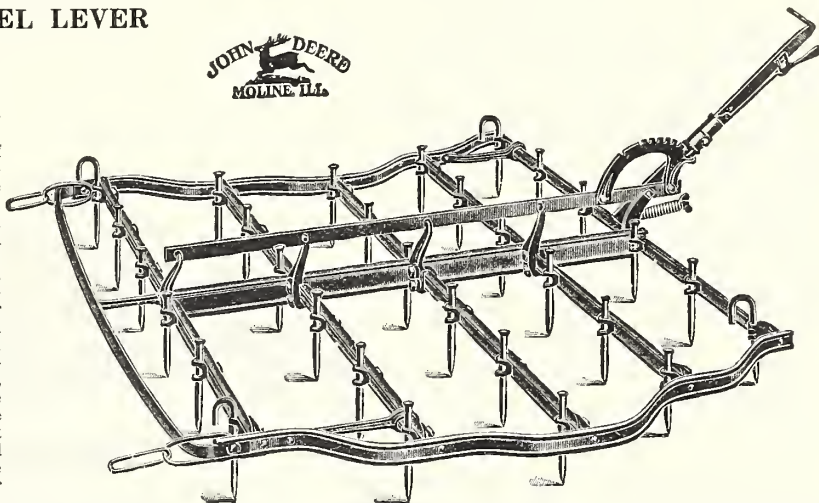
JOHN DEERE UNIVERSAL STEEL LEVER
HARROWTEETH PERPENDICULAR FOR
PULVERIZING

In the Deere Universal Steel Lever Harrow we offer a tool which is entitled to great favor. The Tooth Bars are made of U-bar steel, which insures strength without useless weight. At the same time the sections are heavy enough to give to the teeth the proper amount of penetration in any condition of soil. The teeth are fastened to the bars by our patent tooth fastener, which holds the tooth firmly in position, and yet by slightly loosening the nut, permits the tooth to be removed readily for replacing with new one or to turn the tooth to present a new corner to the work when it becomes worn. Hinge castings are attached firmly to each end of the tooth bars, and are riveted on the outside of the side bars. The tooth bars turn freely, and can be easily adjusted so the teeth will work at any desired angle. Harrow is also provided with a spring trip, which preserves the teeth when using this harrow in stony or rooty ground.

25 Tooth Universal Dray Harrow; weight, 81 lbs. \$12.50
30 Tooth Universal Drag Harrow; weight 95 lbs. \$14.00
50 Tooth Universal Drag Harrow; wt., 182 lbs. \$28.00
60 Tooth Universal Harrow; weight, 211 lbs. \$31.50

We can also furnish large size harrows.

JOHN DEERE
MOLINE ILL.

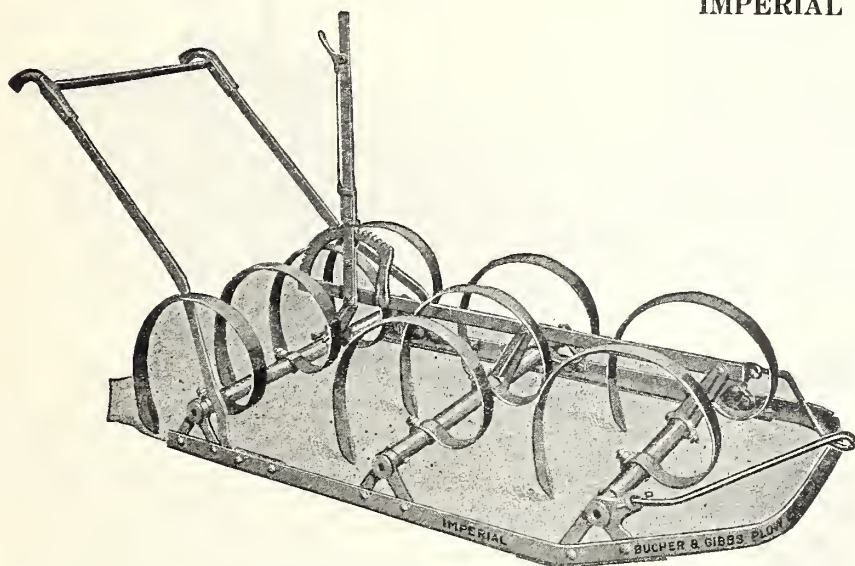


STANDARDIZE: The Farmer should standardize on farm tools. Use John Deere Tools and be sure of repairs when tools become aged.

IMPERIAL LOW DOWN SPRING TOOTH
HARROW

Made with heavy steel pipe tooth bars and steel plates under runners. It is suitable for orchards, hops, vineyards and gardens; is fitted with handles and lever for adjusting the teeth. The front end of frame is tapered, which facilitates turning at the end of row of trees or vines.

9-Tooth Imperial 1 Section Low Down Harrow, cuts 3 feet; weight 137 lbs. Price \$24.00.



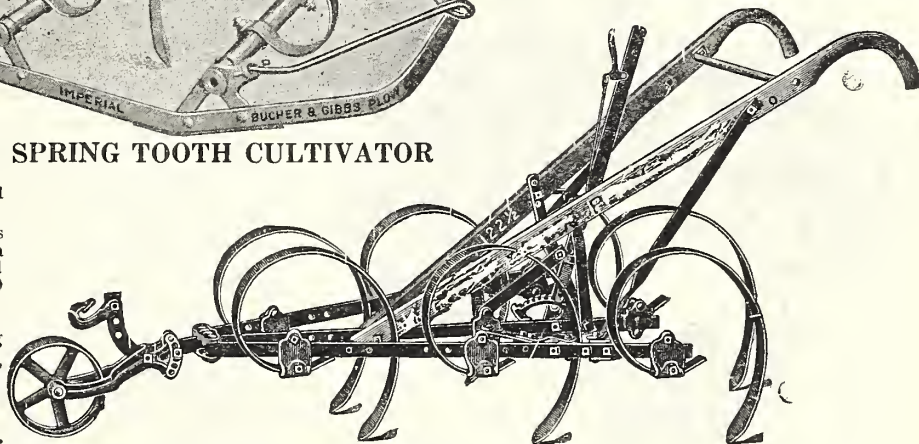
IMPERIAL SPRING TOOTH CULTIVATOR

(7-Tooth Shown in Cut. Stocked only in 5-Tooth)

This Spring Tooth Cultivator is very popular, like the spring tooth harrow. The frame is made of steel and is adjustable in width from 19 to 35 inches.

No. 121½ — Imperial Spring Tooth Cultivator, with 5 teeth, wheel and adjustable lever; weight, 80 lbs. Price, \$14.25.

No. 122½ — 7 tooth. Price \$16.



PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DISC HARROWS AND ROLLERS

SYRACUSE SPRING TOOTH HARROW

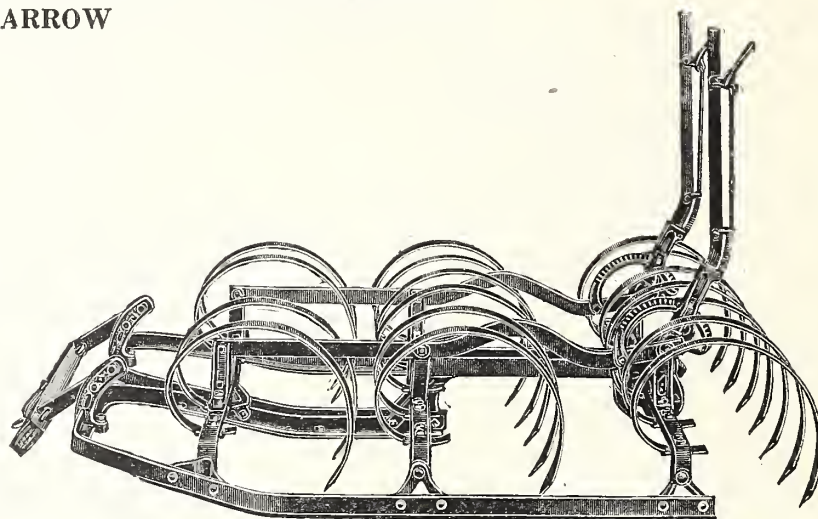
Two Section

The Spring tooth harrow furnishes the best and only practical means of pulverizing, gravelly or stony ground, where deep cultivation is required. The main advantage in the use of the spring tooth harrow, as compared with the disc or smoothing harrow, is that the spring tooth will penetrate to a greater depth than the other harrows and the lower strata of soil may be dug up, brought to the surface and mixed with the top soil.

The Syracuse frame and tooth bars are made of channel and angle bar steel of from 40 to 50 point carbon. The frame thus has great strength without disturbing the elasticity of the bars. The frames of some competing harrows are of 10 to 20 points carbon, which makes a soft steel, bent, and such bars when once sprung do not come back into shape.

The runners have heavy steel protective shoes $\frac{1}{4}$ -inch thick, and they provide twice the wear of the ordinary shoe used on most of harrows.

15-Tooth Syracuse 2 Section Spring Tooth Harrow; cuts $5\frac{1}{2}$ ft.; weight, 215 lbs. Price, \$34.75.



17-Tooth Syracuse 2 Section Spring Tooth Harrow; cuts 6 ft.; weight, 230 lbs. Price, \$37.00.

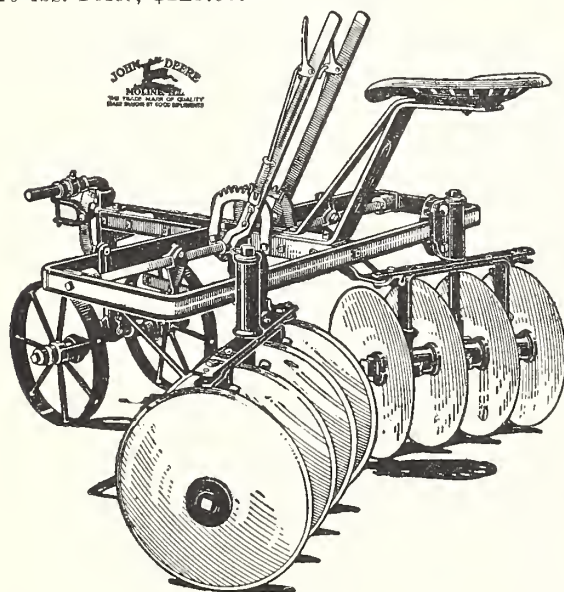
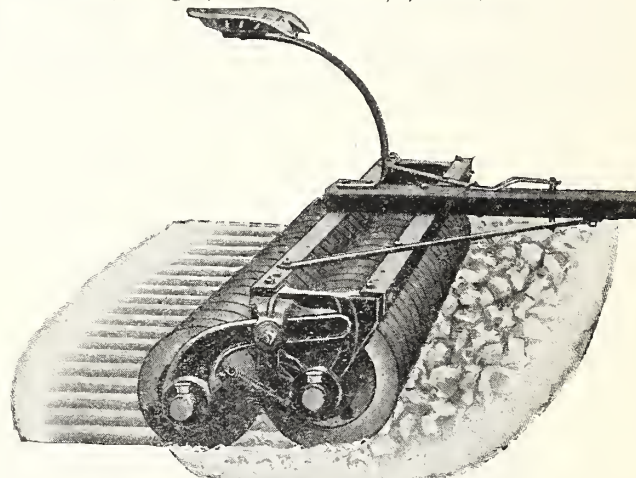
BRILLION CULTI-PACKER

Brillion Double Gang Culti-Packer is a combination pulverizer, roller, packer, and clod crusher. In one operation it will make all these steps at the same time, preparing an ideal seed bed. In many localities this is the only tool of its kind used before and after seeding. It should be used on growing grain any time before the grain starts to joint, working the soil surface, and making a surface mulch that will remain until the crop is matured. It is also very profitable to roll meadows in the spring, firmly packing the loose dirt around the roots. Anyone using this tool finds it a profitable investment. The rear gang can be easily removed if a single roller is at any time desired.

Brillion Culti-Packer, 6 foot; rolls 5 feet, weight 762 lbs. Price, \$88.75.

Brillion Culti-Packer, 8 foot; rolls 7 feet 4 inches, weight 1030 lbs. Price, \$117.00.

Brillion Culti-Packer, 9 foot, rolls 8 feet, weight 1120 lbs. Price, \$125.00.



DEERE MODEL "A" DISC HARROW

For the very best cultivation of orchards, vineyards and hop beds, the Model "A" is particularly fitted and meets all requirements. The disc gangs are reversible for either in or out throw, also adjustable in width from the center out, enabling the harrow to straddle rows or extend under the branches of trees. Discs can be extended out past the frame, doing away with the possibility of the frame scratching the trees when doing close cultivating in orchard work.

In vineyards this harrow can be adjusted to work as close to the vines as desired, working the ground thoroughly two feet or three feet from the row toward the center, and being reversible, you can throw the dirt either toward or away from the row, getting the weeds and stirring all the ground.

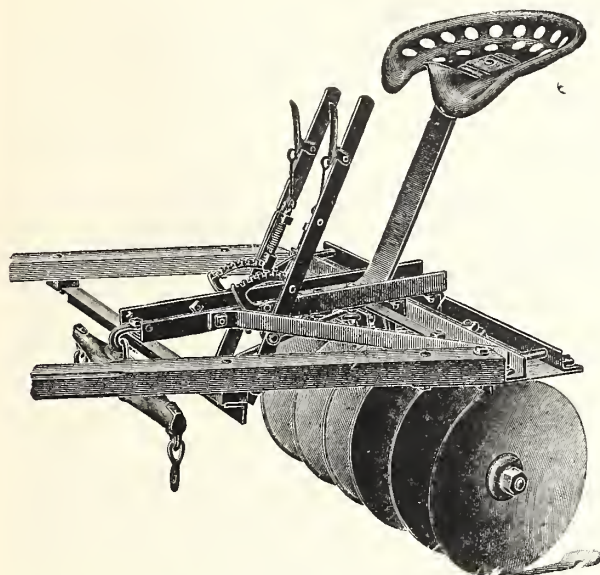
The frame is made of one solid piece of the best of steel. Disc blades are made of special high quality steel, carefully polished and ground to a sharp cutting edge and beveled back $1\frac{1}{2}$ inches on the counter side. The bearings are made of hard maple, soaked in oil, giving a smoother and longer wearing bearing than a metal bearing, also inexpensive when it is necessary to have one or more replaced.

This harrow is stocked in one size only and priced with fore truck, less pole.

Model "A" 8—16-inch Disc Harrow, cuts 4 feet; weight, 397 lbs. Price \$67.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DISC HARROWS



IMPERIAL ONE-HORSE DISC HARROW

The Imperial One-Horse Disc Harrow is a light weight, low priced implement for market gardeners and farmers using one or two horses. **The shafts are readily converted into a pole for two horses.** Few, if any, one-horse disc harrows other than the Imperial have two levers for adjusting the gangs independently. The gangs can be set for out-throw, as shown in illustration, or extended and reversed and used as an in throw harrow or straddle row cultivator. The frame is made of steel angle bars, very strong, light and rigid. Discs are of first grade hard steel, 16 inches in diameter. Cleaning scrapers are regular equipment.

Imperial One-Horse Disc Harrow, with 6 16-inch discs, weight, 210 lbs. Price, \$37.50.

JOHN DEERE MODEL B. Y. DISC HARROW
With Third Lever

The John Deere Model "B" is not only superior in general construction to other discs, but there is also one most important difference in principle that places this machine strictly in a class by itself—its flexibility.

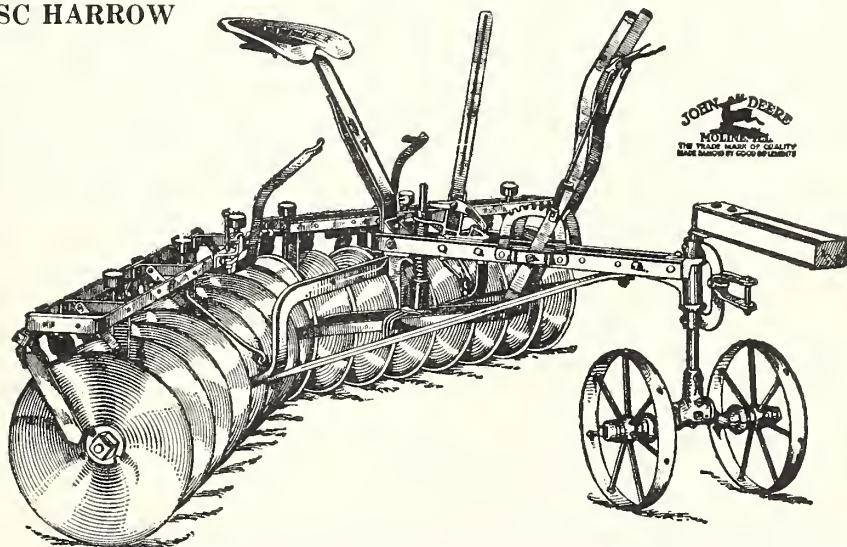
It is a high grade Spring Pressure, Flexible Harrow. A third lever with powerful spring is provided by means of which the driver can easily lower or raise the gangs at the center so as to either cut out dead furrows or to cultivate over ridges or back furrow without burying the harrow in the center.

Each gang of the Model "B" works independently, so that only the part passing over an obstruction is raised out of the ground. With a rigid harrow, the entire machine is lifted out and considerable ground left unworked. In other words, each gang of the Model "B" is controlled by a convenient lever so that the operator can readily regulate it to secure the desired penetration the full width of the harrow.

The Model "B" is a well-built harrow. The main frame is made in one piece from high-carbon steel. The gangs pivot directly from the ends without the addition of any links or extra couplings whatever. The frame is extra well braced by means of heavy bars laid edgewise. The braces also reinforce the bent ends of the main frame as they extend under and are bolted to them, securing greater strength and stiffness where it is most needed. Greater clearance for trash is provided than on any other harrow. The driver's seat is also well up out of the dust and dirt. The disc blades are the hard-working part of any harrow. Either plain blades or cut-away discs can be furnished for the Model "B". They are of the highest quality steel, thoroughly polished on cutting side and ground to a sharp cutting edge. Bearings are the well-known John Deere hard maple oil-soaked bearings, easier and cheaper to replace and also more durable than metal bearings.

Hard-oil cups are conveniently located at top of frame out of the dust and dirt.

The scrapers are of an unusual type. They are independently removable, adjustable and replaceable. There are no rivets, set-screws or other objectionable features on them. The scrapers can be locked either at the center or edge of



the discs, keeping them absolutely clean, or, if not needed, locked off entirely, reducing draft. High-grade spring steel gives them ample stiffness and sufficient flexibility to do their work in the most efficient manner without breaking or bending out of shape.

All harrows are complete with fore truck, but without pole at these prices.

8—16 Model B Disc Harrow; cuts 4 feet; 2 horse hitch; weight 385 lbs. Price, \$71.00.

10—16 Model B Disc Harrow; cuts 5 feet; 2 horse hitch; weight 414 lbs. Price, \$75.00.

12—16 Model B Disc Harrow; cuts 6 feet; 3 horse hitch; weight 472 lbs. Price \$83.50.

8—18 Model B Disc Harrow; cuts 4 feet; 2 horse hitch; weight 402 lbs. Price \$74.50.

10—18 Model B Disc Harrow; cuts 5 feet; 2 horse hitch; weight 436 lbs. Price \$79.75.

12—18 Model B Disc Harrow; cuts 6 feet; 3 horse hitch; weight 499 lbs. Price, \$89.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

DISC HARROW AND GRAIN DRILL

JOHN DEERE MODEL "LY" TRACTOR DISC HARROW WITH YIELDING LOCK

The John Deere Model "LY" Disc Harrow is a good investment for any farmer who owns a tractor and who desires a harrow that can be controlled entirely by the man on the tractor.

Two cranks easily reached by the operator of the tractor permit the independent angling of front or rear sections. Either section can be straightened quickly when in danger of stalling the tractor in heavy pulling, or the gangs can be set in any position from a straight line to extreme working angle **without stopping or backing**. When you go to see this harrow, be sure to try out these cranks and find out for yourself how easily they are operated.

FLEXIBLE—DOES A COMPLETE JOB OF DISCING

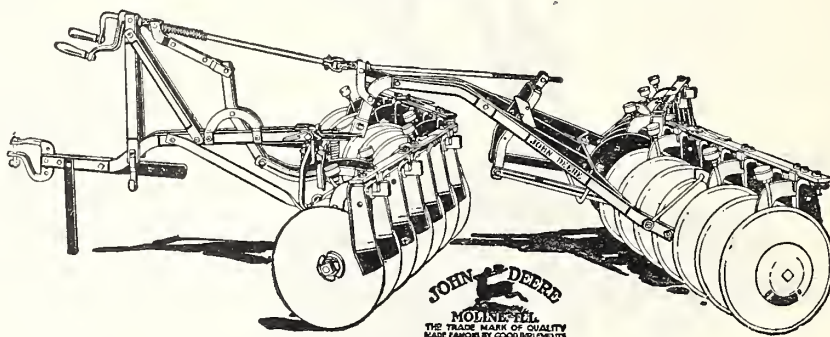
The John Deere Model "LY" is not a rigid, one-piece frame, tractor disc harrow. It penetrates and pulverizes its entire width even when going over depressions or obstructions. It is a flexible harrow. Each section, and, in fact, each gang works independently, discing all the ground without twisting or binding the frame. Three things make it flexible—its automatic, yielding lock coupling, universal joint on control rod, and the pivoted yoke.

PATENTED AUTOMATIC YIELDING LOCK COUPLING COMPELS REAR DISCS TO PENETRATE PROPERLY

This device, which connects the front and rear sections, is an exclusive feature. It compels the rear discs to do their work properly—to cut the ridges left by the front discs instead of trailing in their furrows; and it also prevents the rear section from swinging when one side of the harrow encounters more resistance than the other. The rear section is locked when traveling straight ahead, but, when turning, a coil spring yields, unlocking the coupling. There is no dragging of the harrow when turning.

STONES AND STUMPS DO NOT RAISE ENTIRE HARROW OUT OF THE GROUND

The John Deere Model "LY" is provided with a pivoted yoke on the front section. The drawbars pass through this yoke. This permits the inner end of either gang to rise above the other without raising the entire harrow from its work.



The **Aligning Device** is another feature you will appreciate. It insures good work because it permits adjusting the coupling so that the rear gangs will be locked in the correct position. By means of two eccentrics on the front frame, the coupling may be adjusted to keep the rear section in alignment—just moving the two eccentric levers causes the rear section to move from either side to its proper place behind the front section so that the rear discs will always cut out the ridges left by the front discs.

CAN BE USED WITH ANY STANDARD TRACTOR

The hitch is adjustable to suit the height of any standard tractor drawbar. A forged steel clevis attached to the tractor hitch gives a range of vertical adjustment from eleven to nineteen inches. A leg on the front end of the hitch indicates the proper height of the harrow frame to secure correct line of draft for proper penetration with minimum load. The length of the hitch also can be changed to place the operating cranks in the desired relation to the tractor platform and seat. The low tractor hitch and low coupling between front and rear sections holds the discs down to their work, insuring good penetration.

6-Foot 18-in. Discs, Model "LY" Tractor Disc Harrow, weight about 873 lbs. Price, **\$154.75.**

7-Foot 18-in. Discs, Model "LY" Tractor Disc Harrow, weight about 949 lbs. Price, **\$166.75.**

Write for price on larger sizes.

JOHN DEERE

VAN BRUNT GRAIN DRILL

WHAT TO DEMAND IN A GRAIN DRILL

1. Adjustable force feeds that provide an even discharge, without bunching, of any and all kinds of seed into each seed furrow.

2. Furrow openers that make a proper seed bed, furrows of uniform depth, and deposit every seed on the bottom; that will work in any kind of soil that can be seeded, mud, gumbo, cornstalks or trash.

3. Light draft, light weight without the sacrifice of strength; proper proportions to provide against excessive strain.

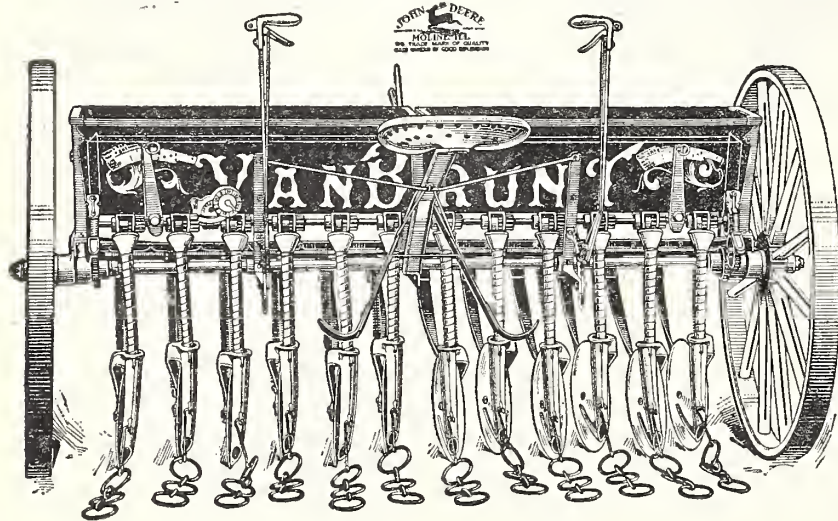
4. Long life with small repair bill.

By these standards we ask you to judge the Van Brunt.

12—Disc Van Brunt Single Disc Drill with 6 inch space; wt. 824 lbs. **\$159.50**

16—Disc Van Brunt Single Disc Drill with 6 in. space; wt. 1123 lbs. **\$201.00**

5—Disc Van Brunt One Horse Drill. Weight 271 lbs. Price, **\$54.00.**



PRICES SUBJECT TO CHANGE WITHOUT NOTICE

No. 400—HOOVER VISIBLE POTATO PLANTER—With Automatic Seed Control

Main Frame—Main frame is made of channel steel, in the form of a yoke, with both front and rear ends bolted solidly together, to which is bolted the main axle bearings and other parts of the planter.

Drive Wheels—Drive wheels are 40 inches in diameter with 4-inch concave tires and have a tread of 35 inches. The wide, concave tires prevent the wheels from sinking in soft ground or slipping on hillsides. Both wheels are provided with ratchets for driving the main axle, which prevents side draft or extra strain on either wheel.

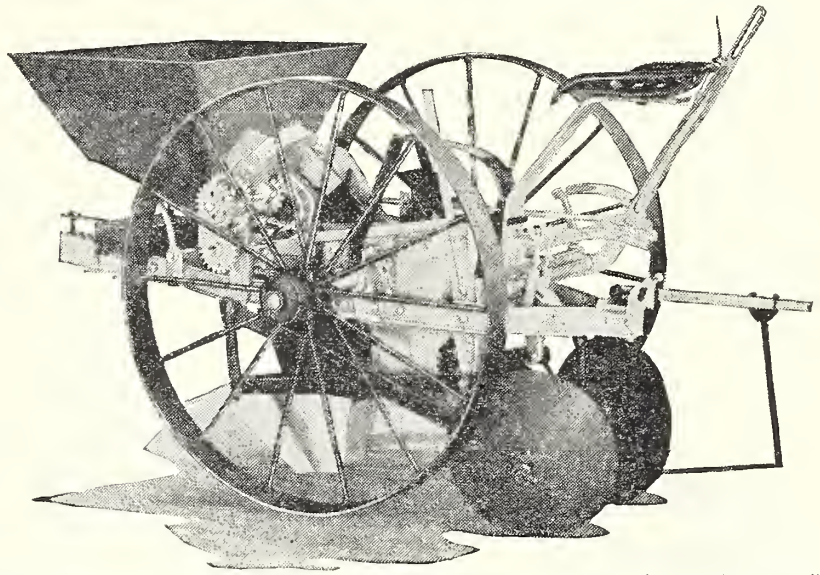
Roller Bearings—Main axle revolves in roller bearing boxes, bolted solid to the main frame. The intermediate shaft also is provided with roller bearings and, as all the power for driving the planting mechanism passes through these bearings, it assures light draft.

Hopper—Potato hopper is placed at the front end of the planter, and is provided with an agitator, which prevents the potatoes bridging. Hopper is made of sheet steel with reinforced top, making it rigid and durable. The hopper holds about two and one-half bushels, and is low down for easy handling of seed.

Positive Feed Wheel—A feed wheel is placed in the rear of the potato hopper for proper handling of the seed to the picking chamber. This wheel elevates the potatoes to the control of the operator, so that the right amount of seed is in the picking chamber, thus preventing the flooding of the picking chamber.

Picking Chamber—The picking chamber bolts solid to the main frame and extends below the axle and picker arms, and is provided with concaves to properly hold the seed for the pickers. Adjusting springs are provided to give these the right pressure on the seed to get the best results.

Accuracy—Three things are very important to the accuracy of a potato planter: First, the right amount of potatoes in the picking chamber. Second, concave spring adjustment, right for the size of the seed. Third, picker points



right. All of these features are embraced in the "Hoover," as the whole planting operation is in direct view of the operator, thus permitting him to observe at once any adjustment necessary to the concave springs or pickers and which concave or picker that needs the adjusting.

Spacing arrangement for changing the dropping distance is very simple. It is not necessary to dismantle the machine or remove drive wheel. Spacing is provided as follows: 9, 11, 13, 14½, 16, 17½, 19½, 22 and 24 inches. Any two are furnished regularly.

No. 400—Hoover Visible Potato Planter, weight 670 lbs. One row. Price \$123.50.

THE "HOOVER" POTATO DIGGER

The Shovel is the best quality, high carbon crucible steel.

Main Sides are special design Bessemer ribbed steel, rolled exclusively for use on the "Hoover."

Truck is double action with 14-inch steel wheels provided with removable hubs and bearing or with Roller Fore-Carriage as shown in cut, optional.

Drive Wheels are steel with staggered spokes and removable hubs.

The Elevator is made of high carbon spring steel, with every alternate link raised and lowered to get the greatest amount of separation, and to form pockets to elevate the potatoes and trash.

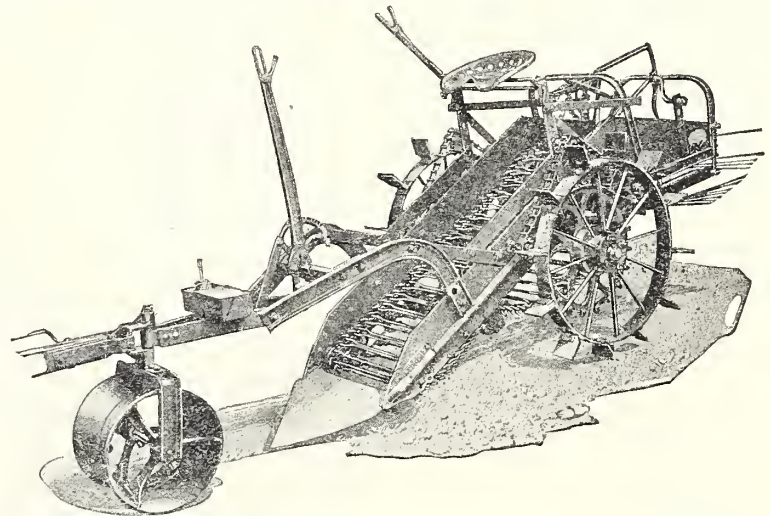
To meet the extremely stony conditions existing in some potato growing sections the middle elevator is recommended.

Vine Separating Rear Rack. This rack has a backward and forward motion which sifts all dirt out and deposits the potatoes in a compact row on clean ground directly at the rear of the machine, while the vines and trash are deposited at one side of the upper set of rods assisted by the vine forks.

Steel Pitmans. The pitmans for agitating the rear rack are made with removable oil-filled hard maple bearings.

Roller Bearings. The main elevator and pitman shafts run in roller bearings absolutely protected from dirt. The front elevator idlers are also provided with roller bearings.

Drive Chains and Steel Sprockets. The power to operate the machine is transmitted from the large drive sprockets by Locke tempered steel chain to hardened steel sprockets on the main elevator shaft, which makes a direct driving



arrangement.

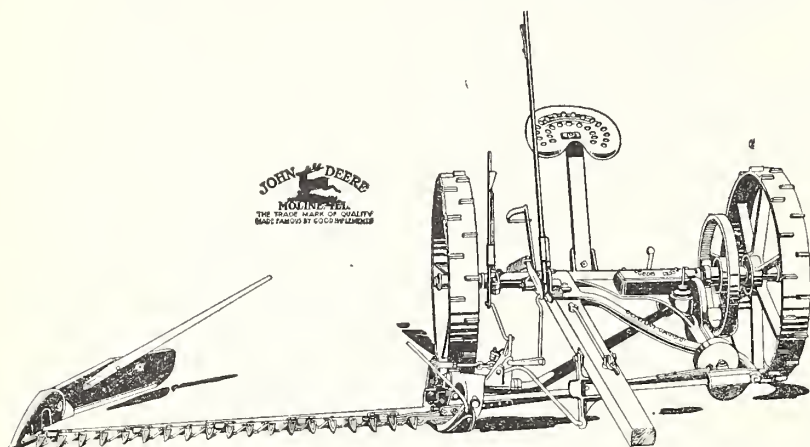
No. 330—6 ft.—22 inch elevator, 30 inch Drive Wheels with Rear Agitating Rack, Kicker and Vine Turner. Weight 1014 lbs. Price, \$156.00.

No. 334—7 ft.—22 inch Elevator, 36 inch Drive Wheels with Rear Agitating Rack, Kicker and Vine Turner. Weight 1095 lbs. Price, \$171.00.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

MOWING MACHINES

THE NEW NO. 1 JOHN DEERE MOWER



Main frame one solid, heavily ribbed casting; bearings all bored at one time, insuring perfect alignment. Large adjustable lifting spring carries weight of bar on wheels; no neck weight, and traction is increased. 21 point malleable clutch engages instantly, giving sure, positive drive and least possible friction. Simple arrangement of gears lessens friction, lightens draft, which means maximum power with minimum wear. Tilting rod is adjustable so cutter bar can be set for any kind of cutting. Heavy drag bar protects pitman and is easily adjusted for lining up cutter bar with pitman. Pitman straps are steel forgings. Sickle head extra large, strong and durable. Bevel pinion placed with large end to rear, preventing end thrust of pitman shaft. A John Deere requires few repairs.

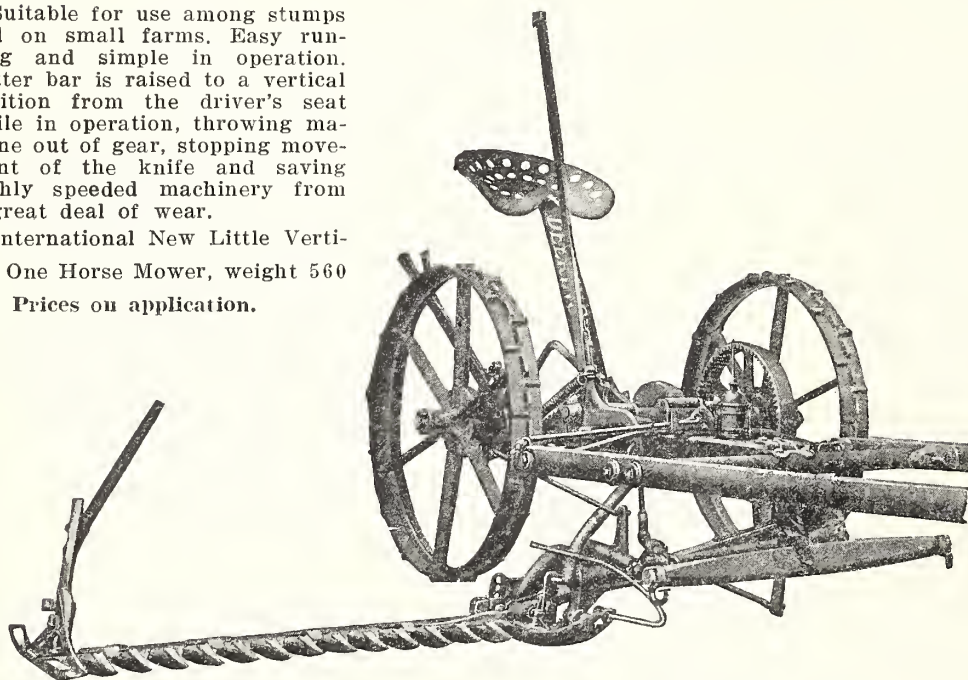
Positively the finest and most efficient mower we have ever offered for sale.

No. 1—4½ ft. John Deere Vertical Lift Mower, weight, 705 lbs. Price, \$98.00.

INTERNATIONAL 3½ FOOT VERTICAL LIFT MOWERS

Suitable for use among stumps and on small farms. Easy running and simple in operation. Cutter bar is raised to a vertical position from the driver's seat while in operation, throwing machine out of gear, stopping movement of the knife and saving highly speeded machinery from a great deal of wear.

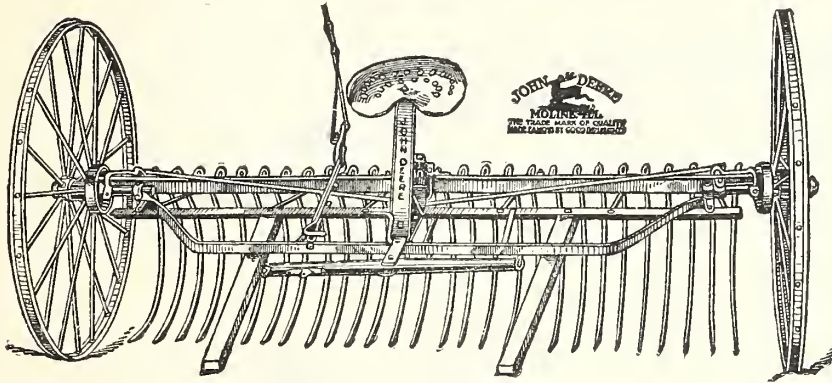
International New Little Vertical One Horse Mower, weight 560 lbs. Prices on application.



Write us for
Repairs on
Dain, John Deere
McCormick
Deering
Mowers
or
Binding Twine
Harvester Oils

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

JOHN DEERE SELF-DUMP RAKE



Heavy angle steel frame, well braced. Notice front frame angle extends to extreme end of frame; wheels have malleable hubs, heavy reinforced renewable sleeve, wide channel tire protecting the 20 7/16 round staggered spokes; wheels are interchangeable to secure new ratchet wearing surface. The rake is made almost entirely of steel and malleable iron, the heavy wheel ratchets being Grey iron. 1/2-inch steel truss rod reinforces the rake head; impossible to sag in center. 1 1/4-inch axles, slightly bent to give wheels necessary pitch. Wheels can never tip in at top. 3/4-inch dump rods; high grade steel, interchangeable and reversible, giving them four times ordinary wear. Hand lever regulates position of teeth, and locks rake head for transportation by simply operating lever latch. Regular tooth holders accommodate minimum or maximum number teeth for fine or coarse raking.

8 ft. John Deere Self Dump Rake, 18 teeth, weight, 409 lbs. Price, \$56.50.
377 lbs. Price \$52.00.

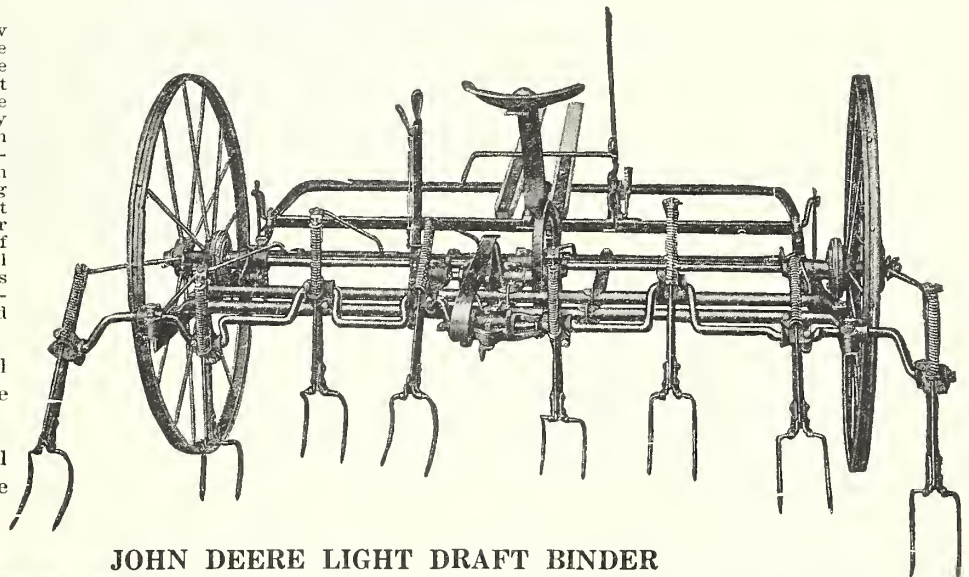
9 ft. John Deere Self Dump Rake, 21 teeth, weight, to Make It. Send for our special bulletin on Better Hay and How

THE INTERNATIONAL HAY TEDDER

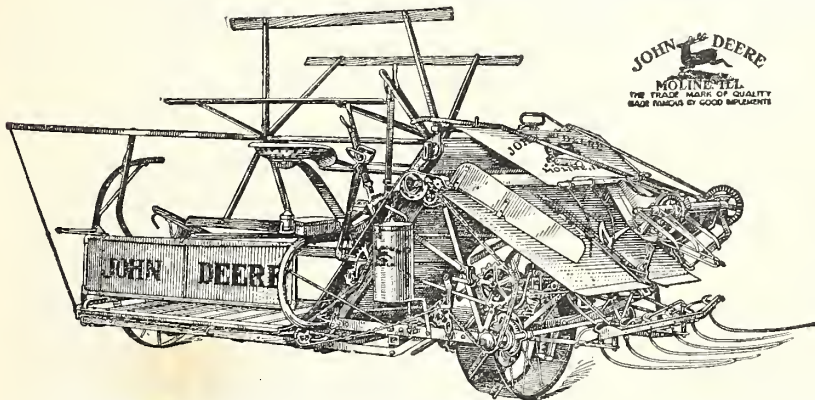
The illustration shows the new International Hay Tedder. The main frame is of heavy angle steel, solidly riveted; cannot twist and sag. Wheels have channel tires, spokes widely staggered. Forks are of high grade spring steel and are provided with coil springs, which prevent breakage when striking an obstruction. The crank shaft is driven by means of a gear wheel mounted on the center of the axle, and hence the full driving power of both wheels is imparted to each fork. All tedders have combination pole and shafts.

6-Fork International Steel Tedder, weight 611 lbs. Price on application.

8-Fork International Steel Tedder, weight 696 lbs. Price on application.



JOHN DEERE LIGHT DRAFT BINDER



A Few of the Features You Get in the John Deere Binder

Main Frame—Riveted, rigid and enduring.

Platform—All steel, riveted, with extra reinforcement.

Binder Deck—All steel, everlastingly good.

All Wearing Parts—Of Knotter Special Hardened and Finished.

Outside Reel Support—On all sizes except 5 foot.

Heavy Canvas—With concave slats to prevent catching straws.

Roller Bearings—With self-aligning bearing boxes.

pole 3 H.H. Price, \$254.00.

6-foot John Deere Binder with Tongue Truck, weight 1913 lbs., 4 H. Hitch. Price, \$287.75.

Transport Trucks, weight 88 lbs. Price, \$13.25.

Three Packers and three discharge arms.
Large Drive and Grain Wheels—With extra wide tires.

6-foot John Deere Binder, weight 1641 lbs., with stiff

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

MANURE SPREADER

JOHN DEERE LOW DOWN SPREADER

With the Beater on the Axle

In designing the John Deere Spreader the inventor worked on two ideals. First: to build it low down, making it easy to load and at the same time making high traction wheels. Second: To reduce the number of parts formerly used in the construction of manure spreaders. As they studied their plans they found that one change would give them the desired results, namely—**BUILD THE BEATER ON THE AXLE**. This allowed them to lower the entire frame of the spreader, at the same time doing away with **over one hundred and fifty working parts**. There are no adjustments on the John Deere Spreader; no chains or clutches to give trouble.

All these changes from the old style of spreader construction, in addition to making it more adaptable for its work, tends to lengthen the life of the spreader and reduce the cost of upkeep.

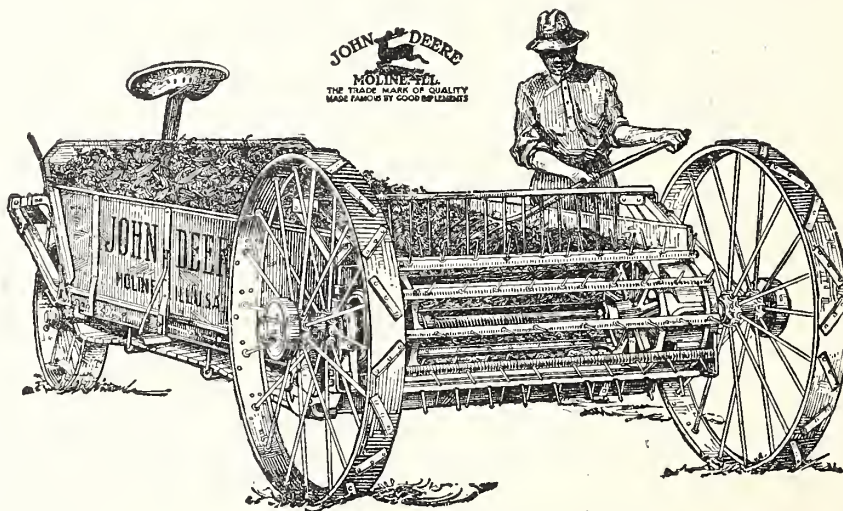
Space is too limited to enumerate all the good features of this machine in this catalog. But we wish to mention twelve of the advantages:

1. Easy to load from the front to the rear—only thirty-six inches to top of box.
2. High Drive Wheels lighten the draft and furnish extra traction.
3. Simple beater drive—gears run in oil in dust-proof case.
4. No clutches—no chains—few adjustments.
5. Only about half the parts necessary on the ordinary spreader.
6. Main working parts mounted on axle—true alignment maintained—no binding, heavy draft or breakage.
7. Patented apron drive prevents racing of apron under all conditions—does not act as a brake.
9. Easy to understand and operate—only two levers.
10. Turns in its own length.
11. Tractor Hitch permits of operating spreader from tractor seat.
12. With straw-spreading attachment, it spreads straw perfectly—a two-in-one machine that one man can operate.

John Deere Manure Spreader, capacity 50 bushels, weight 1825. Kindly ask for descriptive circular. Price, \$215.00 for size B.

IT PAYS TO PRESERVE MANURE

Manure has a commercial value based upon the amount of nitrogen, phosphorous and potash it contains. It has an auxiliary value in the organic substance which equals the plant food elements. According to our best authorities, the value of manure in normal times is as follows:



Cattle	\$2.02 per ton	Horse	\$2.21 per ton
Hog	3.29 per ton	Chicken	7.07 per ton
Sheep	3.30 per ton	Liquid	7.00 per ton

The above does not include the value of the organic substances. The United States Department of Agriculture in Farmers' Bulletin No. 21 estimates that, if the manure from live-stock is preserved, its value each year is as follows:

Horse Manure	\$27.00	Hog Manure	\$12.00
Cattle Manure	19.00	Sheep	2.00

NOTE—At the present price of fertilizer, the value is much greater.

The ideal way to preserve manure in order to prevent waste is to spread while in a fresh state directly on the land. When that is done, there is no loss from leaching or evaporation, and very little from washing.

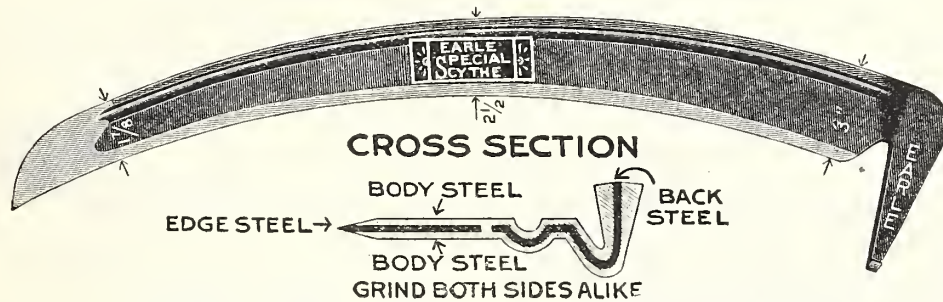
When conditions prevent the farmer from hauling it direct to the fields, he should use care to prevent losses. Manure wastes in two ways—leaching and evaporation.

If carelessly left in the yard or in piles unprotected, a large per cent is lost by leaching and washing away. That liquid is just as precious as the golden grain in the bin, and, if it is lost, the land is deprived of its just portion of food.

John Deere Spreaders Require few Repairs. They are the Favorite with the Dairymen.

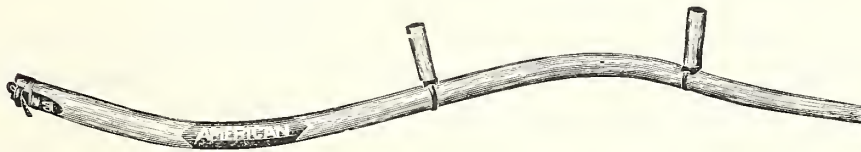
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

SCYTHES AND HAY CARRIERS



GRASS SCYTHES
Earle True Taper. Length 28-34 in.
Price, \$2.40.

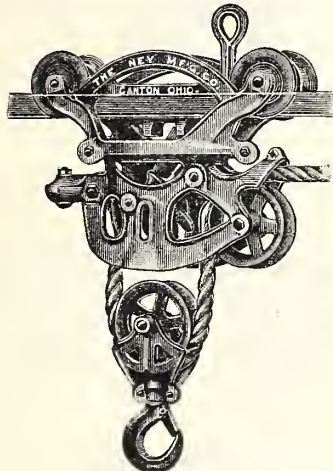
GENUINE SWEDISH
Length 28-30 in. Price, \$1.90
BUSH SCYTHE
Length 18-22 in. Price, \$2.50



American Scythe Snath, Select Bent Ash Body, Malleable Iron Fitting, Grass Snath
Price, \$1.75

No. 85 NEY SWIVEL REVERSIBLE HAY CARRIER

For Double Angle Steel Track



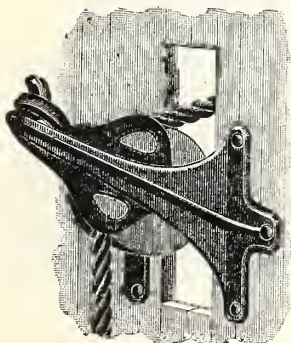
Constructed entirely of malleable iron. Travelers and sheaves revolve on turned steel bushings, making it long lived and easy running.

Cannot pass the bumper or trip block while in operation and is easily reversed from the floor.

Furnished with rope or cable sheaves as desired.

No. 85 Swivel Reversible Hay Carrier. wt., 24 lb., Price, \$10.75.

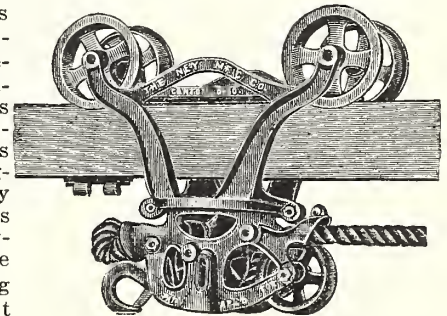
NEW BRACKET PULLEY HOLDER



No. 348—Very convenient for leading rope to a point outside of barn. All work of attaching can be done from the inside. Ney Bracket Pulley Holder, each, \$1.25.

No. 90 NEY SWIVEL REVERSIBLE CARRIER FOR 4x4 WOOD TRACK

This carrier is constructed entirely of malleable iron; travelers and sheaves revolve on turned steel bushings making it long-lived and easy running. Has large track traveler with wide tread, running easily and not roughing up track.

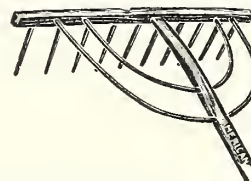


It is easily and quickly reversed from one end to the other in the barn.

Those desiring wood track carriers will find this one of the most simple and perfect carriers yet devised.

No. 90—Swivel Reversible Hay Carrier; wt., 33 lbs. Price, \$10.75.

WOOD HAY RAKE

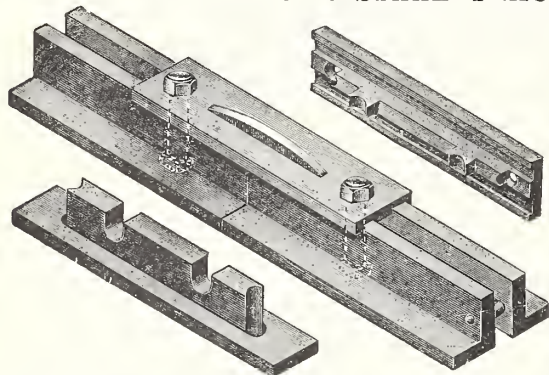


No. 02. Wood Hay Rake, 10 teeth; length head 27 inches; length handle 6 feet. Price, 60c.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

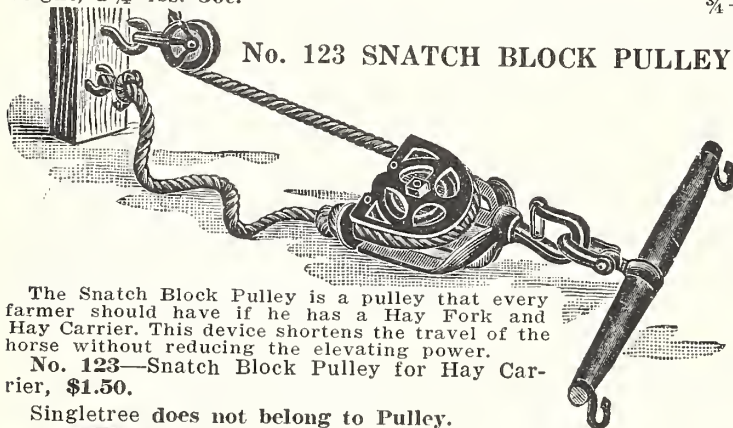
HAY CARRIER FIXTURES

NEY'S DOUBLE ANGLE STEEL TRACK



This new style of angle steel track with splices is conceded by the users to be superior to all others now on the market. It is easily put together by the aid of a wrench only, and with the splice, as shown in cut, properly tightened up, the joint is made exceptionally strong and rigid. The track is riveted together in sections and can be put up, length after length, and also be added to at any time should it become necessary. Furnished in lengths of 6, 8 and 12 ft.

Ney's Double Angle Steel Track with splices, per foot, weight, $2\frac{1}{4}$ lbs. 30c.

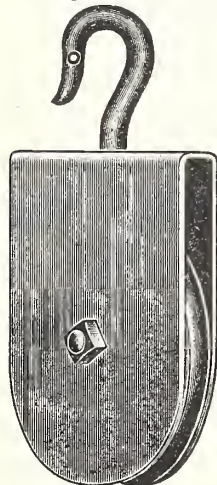


No. 123 SNATCH BLOCK PULLEY

The Snatch Block Pulley is a pulley that every farmer should have if he has a Hay Fork and Hay Carrier. This device shortens the travel of the horse without reducing the elevating power.

No. 123—Snatch Block Pulley for Hay Carrier, \$1.50.

Singletree does not belong to Pulley.



No. 637

No. 495, Malleable Frame Pulley with 6 inch Iron Sheave on Metallic Bushing, for Manila Rope. weight $5\frac{1}{2}$ lbs. Price, \$1.70.

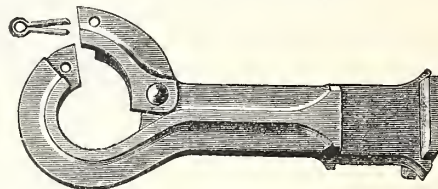
No. 637, Steel Frame Hay Block with 7 in. Iron Sheave on Roller Bearing for Manila Rope, weight 8 lbs. Price, \$1.65.

No. 522, Malleable Frame Pulley with 6 inch Maple Sheave on Hollow Axle for Manila Rope, weight $4\frac{1}{2}$ lbs. Price, 80c.

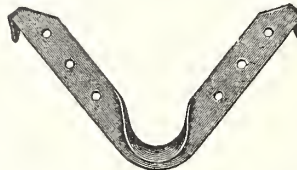
DOUBLE ANGLE TRACK EYE

By using this eye, brackets may be put on, lined up, then eye hooked over.

Track eye, $5\frac{1}{2}$ in. long, ea., 20c



RAFTER BRACKET



Steel Crimped Bracket for track eyes and wood track hooks, each 10c.

WOOD TRACK HANGING HOOK

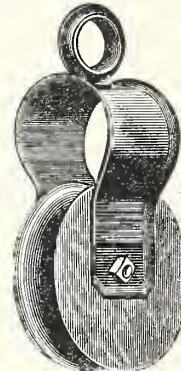
16 in. long, Hanging Hooks, each 20c.

Per dozen, \$2.15.



FLOOR HOOK

$\frac{3}{4}$ -inch wrought floor hooks. Price each, 20c.

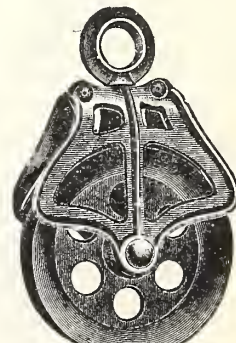


No. 110

No. 110, Steel Frame Knot Passing Pulley with 6 inch Maple Sheave on Pipe Bushing, for Manila Rope, weight 3 lbs. Price 80c.



No. 522

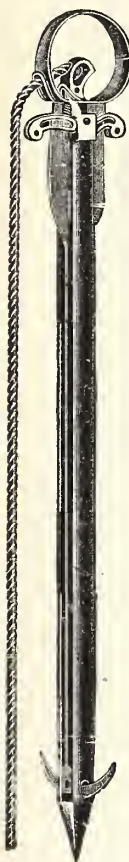
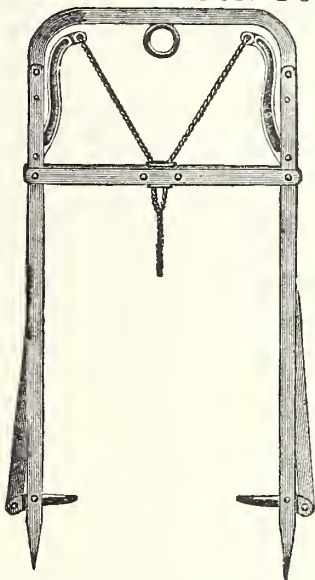


No. 495

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

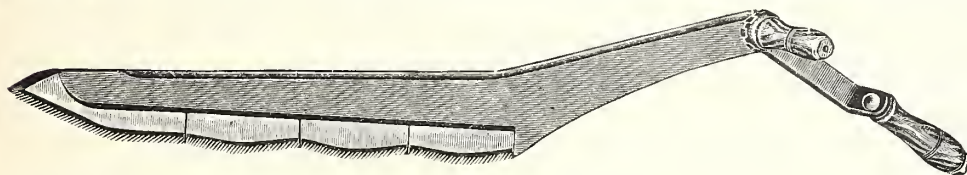
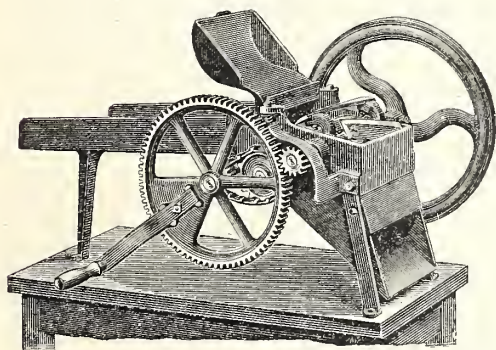
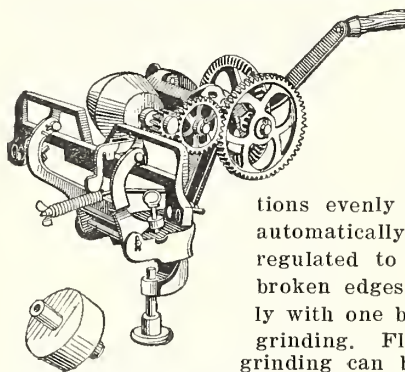
SINGLE HARPOON FORK

Single Harpoon Hay Fork—This fork is too well known to need any description. Made of high grade material and will not get out of order. Single harpoon hay fork, regular length, weight 11 lbs. Price, \$5.25.

**DOUBLE HARPOON FORK**

No. 353 Double Harpoon Fork is made of the very best steel. It is regular length time, 24½ inches. Weight 19 lbs. Price, \$3.50.

No. 316 Double Harpoon Fork, extra heavy tine, 28 inches. Weight 20 lbs. \$3.75.

**RAPID CLOVER CUTTER****HAND KNIFE AND TOOL GRINDER**

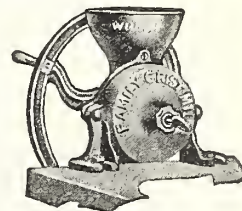
Hand Knife and Tool Grinder with Bevel Stone. Weight, 40 lbs. Price, \$6.60.

Is readily attached to the mower grinder firmly in position. Grinds sections evenly from point to heel automatically and can also be regulated to grind out nicks or broken edges. Furnished regularly with one bevel stone for sickle grinding. Flat stone for tool grinding can be supplied extra.

EXPORT GRIST MILL

This is a new departure in the way of a hand grinding mill, and is not to be compared with those made on the old coffee mill principle.

The shaft is made of cold rolled steel, and the grinding plates are of the hardest metal to stand the greatest amount of wear, and when they are finally worn out they can be replaced at a small cost. Grinds 1 lb. of wheat a minute. Also grinds all other kinds of grain, separately or mixed, roots, etc., fine or coarse as desired. A valuable mill for the housekeeper, poultryman, farmer, druggist, etc. Hand wheel is 19½ inches in diameter.



Export Grist Mill, weight 23 lbs., \$7.50.

NEY WAVING EDGE SERRATED HAY KNIFE

The easiest and fastest hay knife on the market. It

will cut loose or packed hay, straw, peavines, etc., from the stack, mow or bale. Handles are adjustable to suit either hand. It is a favorite wherever used. Ney Serrated Hay Knife. Price, \$2.50.

A Practical, Inexpensive Machine for Poultry Raisers

The rapid Clover Cutter is designed for cutting, either green or dry, such growths as clover, alfalfa, vegetable tops, etc., into ¼-inch lengths. These growths are the cheapest and most productive egg-forming poultry foods for cold weather.

The feature that gives the Rapid easy supremacy over smaller machines is the cutting mechanism. The machine can be kept in perfect cutting order at all times, because the cutter bar is easily accessible, and the four 7-inch spiral steel knives can be readily removed for sharpening. Those who are familiar with "ordinary" clover cutter construction will appreciate these improvements.

The Rapid is made only of iron and steel, from entirely new patterns. It is a strong feeder, has large capacity, runs unusually easy and will do perfect work. Length over all, 28½ inches.

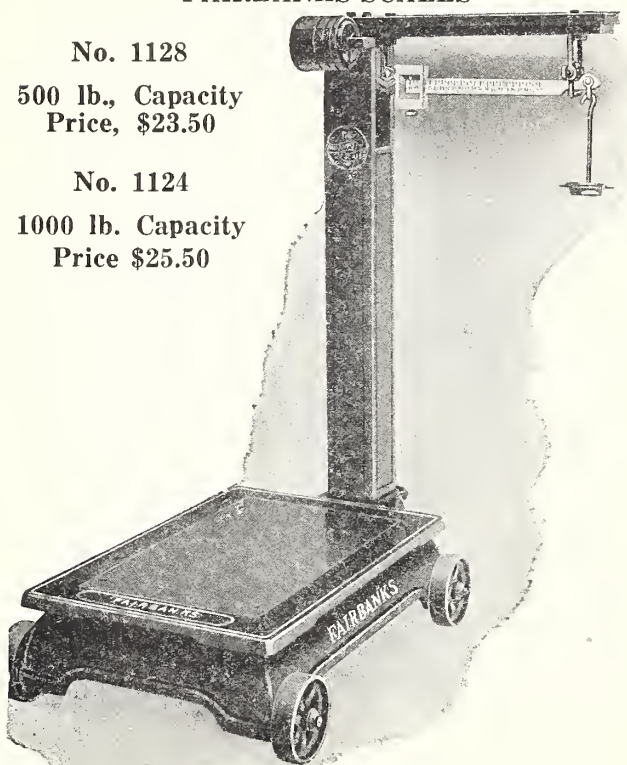
Rapid Clover Cutter, weight 60 lbs., \$22.50.

FAIRBANKS SCALES

No. 1128

500 lb., Capacity
Price, \$23.50

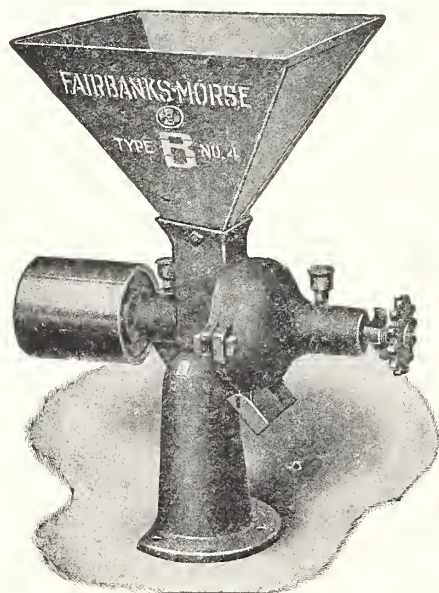
No. 1124

1000 lb. Capacity
Price \$25.50

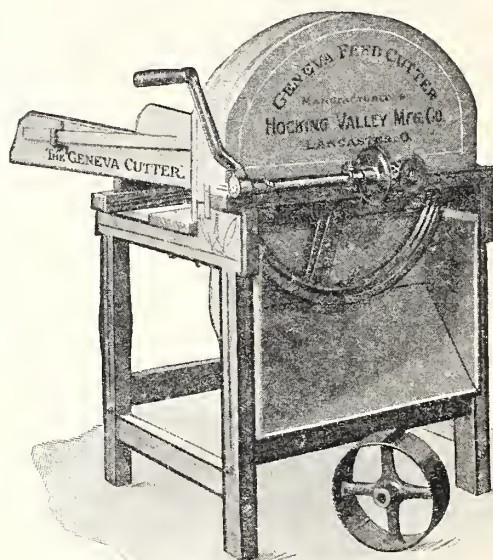
This type of Portable Scale is one of the most efficient for general use and is furnished with wheels. It is equipped with arrow-tip single beam having a sliding poise with set screw, all of brass. Steel to steel bearings.

YOUR GRANDFATHER USED A FAIRBANKS SCALE TO PROTECT HIS BUYING AND SELLING.

Write for prices on larger scales.



GENEVA POULTRY CUTTER



The Geneva Feed Cutter is carried for the accommodation of those of our patrons who prefer a cutter with the knives on the balance wheel. The knives are straight, flat and of best quality steel, easily adjustable to the shear bar. Can be removed, ground and replaced with ease. Cuts $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 and $1\frac{1}{4}$ inch. It is a perfect hand cutter. The simple construction makes it very easy to operate by hand. Every part of the machine is strong and well built. Can be used by power if desired.

No. 6—Geneva Poultry Feed Cutter with two 9-in. knives, weight, 190 lbs. **Price, \$50.00.**

No. 8—Geneva Poultry Feed Cutter, with two 10-in. knives, weight 225 lbs. **Price, \$54.00.**

No. 10—Geneva Feed Cutter, with two knives, lever to throw out of gear and reverse rollers; wt., 260 lbs. **Price, 62.00.**

Can furnish power pulley.

We can supply large Geneva Cutters.

TYPE B FEED GRINDER

The Grinding plates in this grinder are of the single face type and differ somewhat in design from the plate furnished with No. 8 and No. 10. Like the larger sizes the No. 4 is a very efficient grinder and has the following features which make it particularly suited for the class of work for which it is offered.

Forced Feed.

Large Grain Hopper

Self-Aligning Plates.

Long Bearings.

Large Shaft—one inch in diameter.

Grinding Plates—four inches in diameter.

Grinder Pulley—four inches diameter, four inch belt width.

Capacity—This grinder requires from 1 to $1\frac{1}{2}$ H. P. to operate it at a speed of from 500 to 750 R. P. M. The capacity of the grinder is from 1 to 3 bushels per hour. It will crack corn, if the grain is dry, at the rate of from 3 to 8 bushels per hour. The weight of the grinder is approximately 30 pounds.

Type B Feed Grinder, \$13.00.

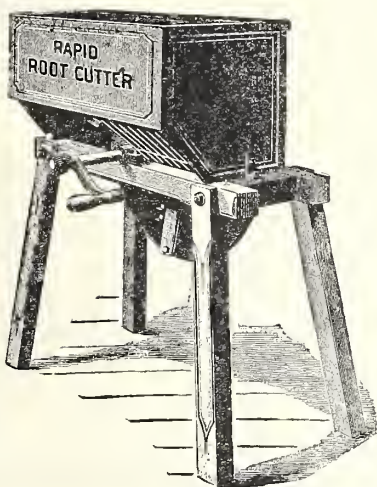
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

ROOT CUTTERS

The feeding of roots to stock is being practiced more and more in this country. Like various other foods, roots are more valuable and convenient to feed when cut or sliced, and the "Rapid" Cutter and Slicer, shown here, is an excellent machine for this purpose, with large capacity. It is simple and not liable to get out of order.

Description of Cutter

The three cutting knives on the fly-wheel follow closely after small projecting slicing or slitting knives, which cut at right angles to the edge of the cutting knives, thus reducing the material to a very nice condition for feeding. The hopper bottom is of slanting cast grating, which allows dirt,



gravel or foreign matter to fall through and thus be kept separate from the cut feed.

Safety—The opposite side of the hopper is solid, and entirely covers up the fly-wheel and knives, so that children or others around the machine cannot come in contact with these parts.

For Hand or Power—The shaft is best cold rolled steel, with strong crank on one end and fitted for 4-inch face, 10-inch diameter pulley on the other. The frame is hardwood and strong, being bolted through at the legs with tie rods running clear through. Capacity about 50 bushels per hour.

No. 2—Weight 190 lbs. Price, \$36.00.

No. 3—Same as illustration, with exception or having perforated iron hopper instead of wooden hopper. Weight, 215 lbs. Pulper and slicer. Price, \$39.50.

For power pulley add \$3.00.

NO. 7 BANNER ROOT CUTTER**The Poultryman's Friend**

Vegetable Cutter—Will furnish green food during the winter for poultry and will cut potatoes, turnips, beets, carrots, apples, etc., in long shaving-like strings, readily eaten by your chickens.

No. 7—Banner Root Cutter, weight 50 lbs. \$10.00.

PAPEC ENSILAGE CUTTER

The arrangement of the knives, cutting wheel and drum all supported in a one-piece semi-steel frame, without joints of any kind, insures permanent alignment of the cutting mechanism, which means good clean ensilage of uniform size. Special parts for cutting long lengths can be furnished at small additional cost.

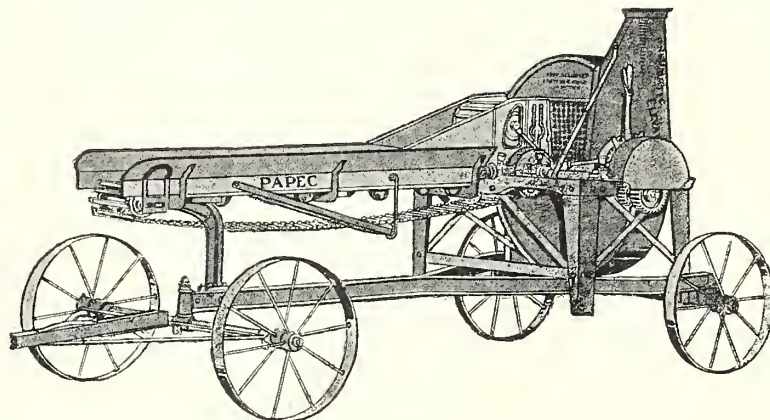
CAPACITY—The capacity of any ensilage cutter depends upon the length of cut, amount of power and condition of corn or other crop to be cut. Papec Cutters are guaranteed to cut and elevate AT LEAST one ton of green corn silage per hour for each horse power applied. The capacity on green alfalfa is about one-third as much as on green corn.

POWER—The power required to operate a Papec is from 20 to 33½ per cent less than for any other blower cutter doing the same work. Many of our 10- and 13-inch cutters are satisfactorily operated by small gasoline engines varying in size from 3 to 6 horse power.

SPEED—Beware of cutters operating at high speed as they are not only dangerous but consume an enormous amount of power, and power costs money. The Papec is guaranteed to elevate perpendicularly to the height of any silo at low speed—600 R. P. M. Furthermore, the cutting wheel is practically indestructible. It is made of semi-steel and reinforced on the rim by a heavy steel band which insures absolute safety.

CONVENIENT TO OPERATE—FED FROM GROUND

The feed table on the Papec is not only the right height to feed comfortable from the ground but is permanently assembled, does not have to be removed or folded when moving the cutter from one silo to another. The cutter is belted crosswise of the ground wheels, thereby doing away with the "jiggling" motion that is so disagreeable on some other makes of machines.

**EASY TO SET UP AND TAKE DOWN**

The Papec, when located, is ready for business as soon as the pipe is set up. The feed table does not have to be removed or propped up out of the way. There is nothing to remove or put together but the pipe. No other cutter can be set up and taken down so quickly.

ALL CUTTERS THOROUGHLY TESTED

All cutters are thoroughly tested at the factory in a special department maintained for this purpose. Each and every cutter is operated at a speed of from 1050 to 1200 R. P. M., or nearly 50 per cent greater than our maximum for actual use. By feeding in proportion to the power at hand the operator will find the Papec an eminently satisfactory cutter.

SPECIFICATIONS	N-13				R-10	PRICES
	K-19	L-16	2-Knife	3-Knife		
Tons per hour	20 to 30	12 to 20	5-10	8-12	2 to 5	R-10 Unmounted\$202.50
Hores Power, Gasoline	20 to 30	14 to 20	6-10	10-14	3 to 6	
Lengths of Cut	¼, ½, 1"	¼, ½, 1"	¼, ½, 1"	⅓, ½, ¾"	¼, ½, ¾, 1"	R-10 Mounted, 2 wheels, \$220.50
Revolutions per minute	500	600	650		700	R-10 Mounted, 4 wheels, \$240.50
Diameter of Main Shaft	2¼"	2"	1½"		1½"	N-13 Unmounted 2 knives \$260.00
Throat Opening at Cutting Plate....	8½x18½"	8x15"	6¾x12¾"		6½x10⅞"	N-13 Unmounted 3 knives \$282.50
Length of Cutting Knives	21"	19"	15⅞"		12¾"	Prices on larger machines on application.
Size of regular pulley	14x8	12x8	12x6		10x6	
Shipping Weight, not mounted		1690	1215	1245	930	
Shipping Weight, mounted	2670	1960	1490	1520	1000 and 1110	

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

HANDY FARM MIXER—Unmounted

1. **All Metal Construction.** Steel and iron are the materials that make the Handy Mixer. No wood to rot or warp; no barrels to cave in.

2. **Simple Gear Drive.** Sturdy, powerful, gear-drive construction. Gears fully protected against grit and sand by their location and gear guard.

3. **Drum Shaped Important.** The drum is broad at the bottom, tapers cone shape to the mouth, giving the batch a forward and backward mixing motion as well as rotating movement.

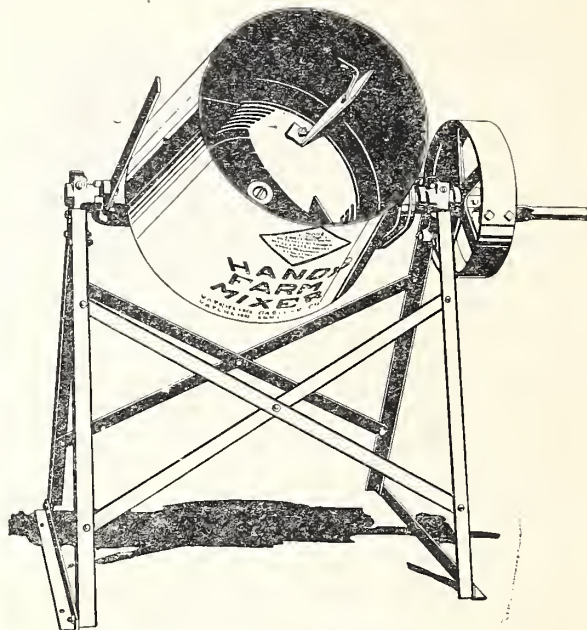
4. **Improved Mixing.** Three Steel blades securely bolted to drum plow through the batch as the drum revolves, completing the mixing motion. Blades are removable for washing root crops.

5. **No Moving Parts in the Drum.** No pockets or corners for material to catch in or clog; self-cleaning.

6. **Drum Always in Gear.** Mixing drum revolves continuously either way, even when tilting; mixing commences the minute the first shovelful is deposited. It keeps on mixing until drum is empty.

7. **Capacity.** Wheelbarrow load to the batch. Mixing time, one minute.

Handy Farm Mixer. Price, \$37.00.

**IRONED WAGON NECKYOKES**

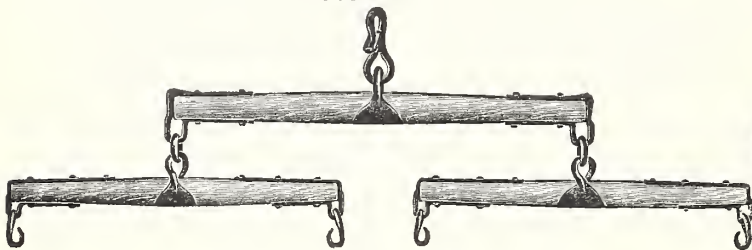
No. 202—40 inches.	Price each	-----	\$1.65
No. 204—44 inches.	Price each	-----	2.20
No. 205—48 inches.	Price each	-----	2.65

CULTIVATOR AND PLOW HANDLES

Straight Plow Handles, unpainted, Each, 70c.

Deere Straight Plow Handles, varnished. Each.

95c

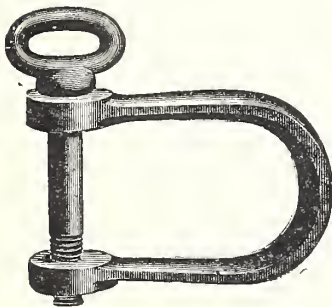


No. 580—2 1/2 x 26 inches.	Single tree	----	\$1.00
No. 584—2 1/2 x 30 inches.	Single tree	----	1.05
No. 585—2 5/8 x 30 inches.	Single tree	----	1.20
No. 220—2 5/8 x 32 inches.	Single tree	----	1.30
No. 221—2 3/4 x 34 inches.	Single tree	----	1.45
No. 222—3 x 36 inches.	Single tree	----	1.75

No. 652—Doubletree, 3 1/4 x 38 inches, with safety hook and malleable loops; singletrees, 2 3/4 x 30 inches, with twisted center clip and connected with welded ring; weight 30 lbs. Per Set. Price, \$5.35.



No. 606—1 3/4 x 3 1/2 x 42 inches, steel clevises and riveted ends. Weight 9 3/4 lbs. Price \$1.45.

CLEVISES

No. 410—2 1/2 x 4 1/2 inches, Band Pattern. Each 30c.

No. 430—2 1/2 x 6 inches, Band Pattern. Each, 45c.

No. 434—3 x 8 inches, Band Pattern. Each 55c.

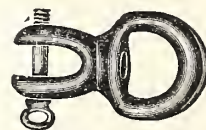


TWIST END CLEVIS
Loose Pin, Each 25c

TWIST END CLEVIS
Screw Pin, Each 30c

SWIVEL END CLEVIS

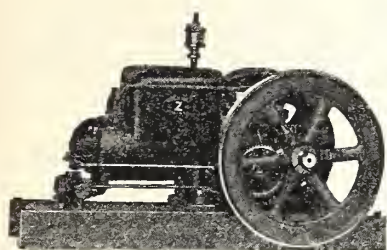
No. 2824 Swivel End Clevis,
3/4 x 4 3/4 inches over all. Each 40c.



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GASOLINE ENGINES

FAIRBANKS-MORSE "Z" ENGINES



The Fairbanks Morse "Z" Type Engines are made in three sizes—2, 3, and 6 H. P. These engines are equipped with the New Type R Rotary Magneto—the highest grade ignition system. It gives to your "Z" engine an intense, efficient, penetrating, synchronized spark—reliable, steady, unaffected by atmosphere or continuous usage. It is of

master design—scientific, self-contained, simple, rugged—built of best materials by expert workmen. It is the magneto you can depend upon—simply oil it and forget it.

You simply cannot get more engine value per dollar than you get when you buy these engines. They are built especially to use kerosene, distillate, coal oil, tops and other cheaper fuels as well as gasoline. Fix this in mind. The "Z" engines are not gasoline engines built over for kerosene—they are not gasoline engines with kerosene attachment. They are real kerosene engines that will use gasoline as well. Here's where you get your economy—these engines use kerosene so successfully that you get the same power from a gallon of kerosene as from a gallon of gasoline—and you save the difference in cost.

The "Z" Engines have other very important and distinct features such as—

Throttling Governor assures constant, reliable power. It makes the engine run smoothly.

Suction Fuel Feed—no pump—simple and reliable.

Convenient Speed Controller gives change of speed,

if desired, while engine is running.

Removable bushings in bearings.

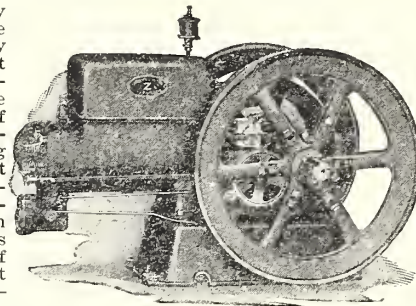
Close Speed Regulation.

Ample Positive Lubrication.

Practically automatic in operation, requiring but little attendance—easily started and stopped. Run smoothly, quietly, cleanly.

Fairbanks-Morse Quality throughout.

Furthermore every bit of metal in these engines is effectively used to give greatest strength without excess weight. The crank shaft is of forged steel with extra large bearing surface—it is built for long life. The interchangeable die-cast liners in main and crank bearings are easy to replace if necessary. Need but little floor space—simple foundation.



Prices with Solid Flywheel

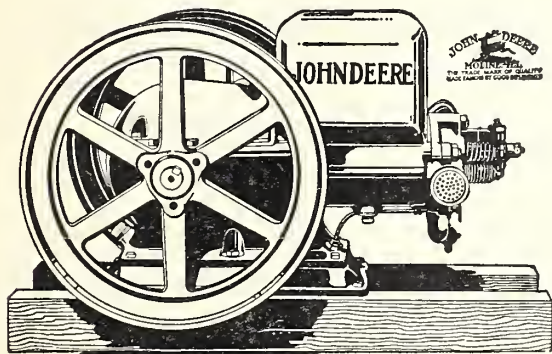
2 H. P. "Z" Engine, weight 265 lbs. Price, \$69.85.

3 H. P. "Z" Engine, weight 470 lbs. Price, \$120.05.

6 H. P. "Z" Engine, weight 865 lbs. Price, \$184.00.

Made in both open spoke and solid flywheel types.

JOHN DEERE TYPE "E" ENGINES



Operating Parts Completely Enclosed and Oiled Automatically

The complete enclosure of the important operating parts not only fully protects these parts from dust, grit and other foreign matter which result in undue wear, but this construction also makes possible a simple automatic oiling system. The same oiling system as employed in automobile construction is used in this new Type "E" engine. There are no hard oilers to fill and adjust—no sight-feed oiler to watch—no pump to clog or tubes to get loose. By simply filling the oil reservoir located in the engine base after every twenty hours of actual running, no further oiling attention is necessary. Lubrication starts with the operation of the engine and stops when the engine stops. A convenient large oil-filling hole serves as an oil gauge.

The constant effort made by the corps of engineers in this John Deere factory to simplify the gas engine, to make it more safe and more convenient for the women folks to operate, and to do away with oiling inconveniences, has become a reality in this new engine.

John Deere 1½-H.P. Type "E". Price \$73.00.

John Deere 3-H.P. Type "E" Price, \$116.50.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

PUMPS AND WATER SYSTEMS

RESIDENTIAL WATER SUPPLY AND IRRIGATION

Owing to limited space in this catalog we do not list our complete line of Pumps and water systems. Many prospective buyers of pumping machinery know the general result they desire to accomplish, but do not know how to secure it. We have competent men, familiar with hydraulic machinery of all types, who are at your service at all times.

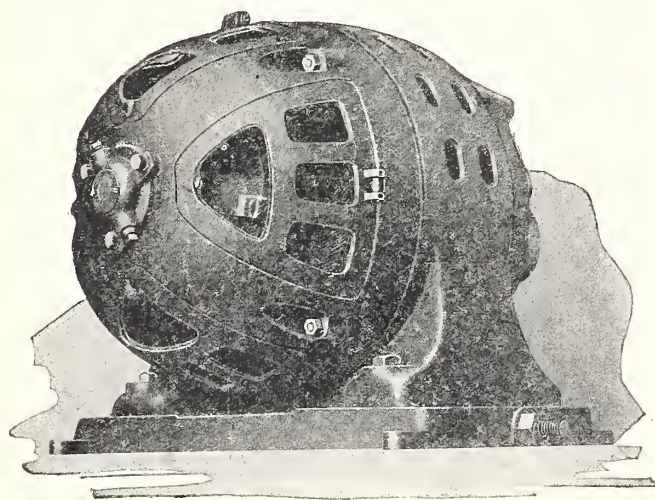
You tell us what you want to do.

We will tell you how to do it.

In order that we may make intelligent recommendations, we must be fully informed of all existing local conditions. We therefore, ask you to give us the full information in answer to the following questions:

1. For what purpose is the plant to be used?
2. What will be the maximum quantity in gallons per minute required?
3. What is the source of supply—Well, creek or river?
4. To what height (vertically) is the water to be lifted by suction?
5. If the source of supply is a well, what is the inside diameter and the total depth?
6. What is depth to water level in the well below surface of ground, when not being pumped?
7. Has supply been tested? If so, what is the depth to water level, below surface of ground after several hours pumping? How many gallons per minute were pumped during test?
8. What is the vertical height from lowest water level in supply to point where it is to be discharged?
9. What is lateral distance from source of supply to the point where it is to be discharged?
10. What power is to be used? Gas engine or electric motor?
11. Be sure to state whether storage is to be an open tank or pneumatic tank.

FAIRBANKS MORSE SINGLE PHASE MOTORS.



SLEEVE BEARING—110-220 VOLTS

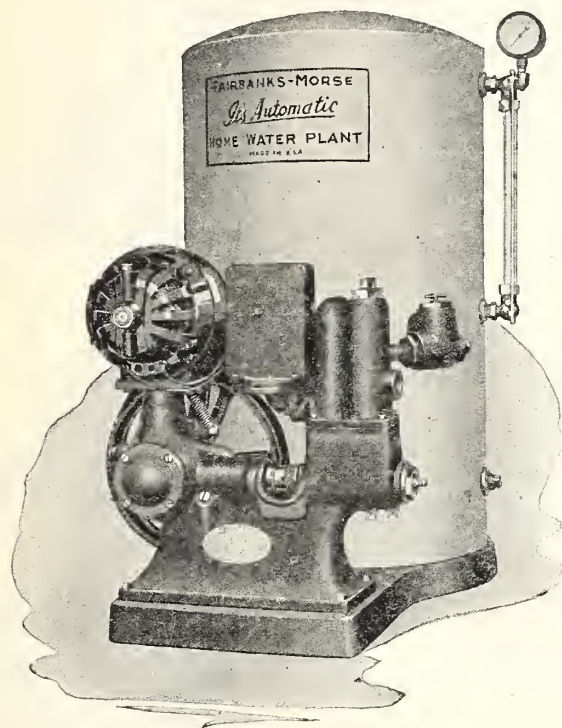
H. P.	R. P. M.	R. P. M.	Pulley	Wt.
No load		Full load	Dia.-Width	
2	1200	1150	4 x3	190
¼	1800	1740	2 ½ x1 ½	45
½	1800	1740	3 x2	76
½	1200	1150	3 x2	100
1	1800	1740	3 x2	114
1	1200	1150	4 x3	125
2	1800	1740	4 x3	175
3	1800	1740	4 x3	200
3	1200	1150	5 x4	300
5	1800	1740	5 x4	300

Write for Prices

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

PUMPS AND WATER SYSTEMS

FAIRBANKS-MORSE HOME WATER PLANT



The Fairbanks-Morse Home Water Plant brings sanitation and health to your home. Besides, it ends the drudgery of hand-pumping and carrying water in sloppy buckets. The plant operates from any light socket or home lighting plant circuit.

Pumps from spring, cistern, shallow well, stream or lake, UNDER PRESSURE. Noiseless.

PRESSURE AUTOMATICALLY maintained. ENTIRELY automatic—no adjusting. Not even a switch to turn. Has galvanized steel tank and famous Fairbanks-Morse quality pump. FRESH WATER IS NEEDED FOR HEALTH and for a happy, comfortable home. Costs only a few cents a day to operate.

No. 4237—Home Water Plant with 35-gallon Tank, capacity 200 gallons per hour. Price, \$135.70.

No. 4238—Home Water Plant with 70-gallon Tank, capacity 200 gallons per hour. Price, \$153.75.

No. 4246—Home Water Plant with 35-gallon Tank, capacity 400 gallons per hour. Price, \$189.75.

No. 4245—Home Water Plant with 70-gallon Tank, capacity 400 gallons per hour. Price, \$207.00.

Maximum Suction lift 22 feet.

Pressure minimum 20 lbs. Maximum 40 lbs.

Motors Regular 110-220 Volts.

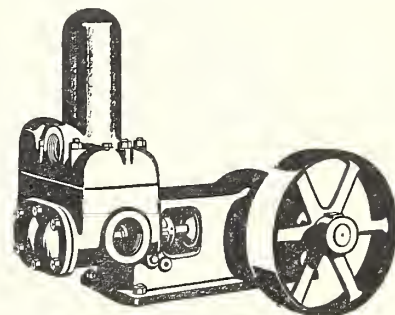
All piping from service tank and from the pump to the well at extra cost to purchaser.

NOTE—Deep Well Automatic Plants vary so much in design, due to the great divergence in requirements, that it is impossible to catalog them all. We will be pleased to quote prices and give information on your requirements upon request.

SELF-OILING TYPHOON POWER PUMPS

Self-Oiling. The base of the power end serves as an oil reservoir. All working parts are automatically lubricated. All working parts enclosed—fully protected from dirt and injury—at the same time all parts are easy of access.

This pump can be used for any general service pumping where the total suction lift from the pump to the source of supply is not greater than 22 feet. It is made in four sizes—800, 1400, 2500 and 5000 gallons per hour.



Specifications

Gals. Per Hour	Outfit No.	No. of Cyl.	Bore, Inches	Stro- ke Inches	Suct'n Inches	Dis- charge Inches	R.P. M.	H.P. Req'd at 100 lb. Press- ure	SHAFT PULLEY FIT				PULLEY SIZES INCHES		Belt Width	Inches Price With Tight Pulley Only
									Diam. Inches	Projection, Inches		Key, Inches	Tight Pulley Only (Stand- ard)	Tight and Loose Pulleys		
										Tight Pulley only	Tight and Loose Pulley					
800	4337	2	1 ⁵ / ₈	1 ⁷ / ₈	1 ¹ / ₂	1 ¹ / ₄	215	1.06	15/16	2 ¹ / ₄	4 ¹ / ₂	³ / ₈ x ¹ / ₄	12x2 ³ / ₄	12x2 ³ / ₄	2 ¹ / ₂	\$ 84.90
1400	4338	2	2	2 ¹ / ₈	2	1 ¹ / ₂	215	1.87	1 1/8	3 ¹ / ₂	6 ⁷ / ₈	³ / ₈ x ¹ / ₄	14x3 ¹ / ₄	14x3 ¹ / ₄	3	113.00
2500	4339	2	2 ¹ / ₂	2 ¹ / ₂	2 ¹ / ₂	2	215	3.33	1 5/16	3 ¹ / ₂	6 ⁷ / ₈	¹ / ₂ x ³ / ₈	16x4 ¹ / ₄	16x4 ¹ / ₄	4	136.20
5000	4340	2	3 ¹ / ₂	2 ¹ / ₂	3	2 ¹ / ₂	215	6.66	1 3/4	5	8 ³ / ₈	¹ / ₂ x ³ / ₈	21x5 ¹ / ₂	21x5 ¹ / ₂	5	216.30

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

PUMP JACKS

No. 75

The No. 75 Pump Stand makes a very satisfactory force pump for either hand or power use, in wells of reasonable depth. The piston rod is 1-inch diameter. The fulcrum cap is held in place by bolts and is quickly removed, thereby allowing the plunger of a deep well cylinder to be drawn up without disturbing pipe or pump stand.

The standard is tapped for 2-inch suction pipe and 1¼-inch discharge pipe. Furnished with hose connection and a 1½-inch and 1¼-inch bushing.

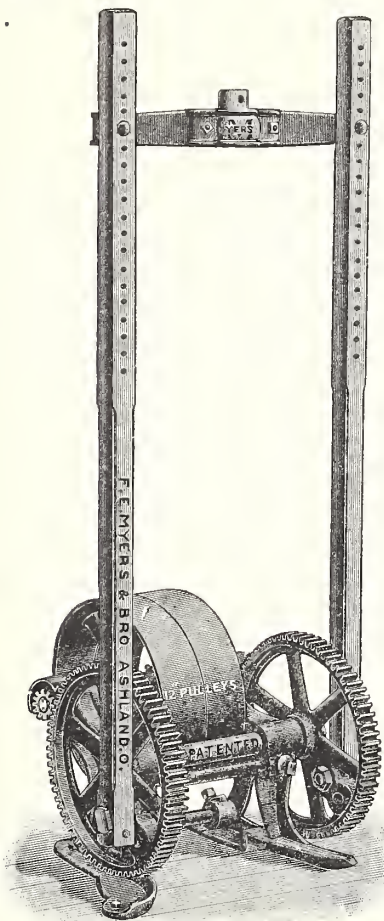
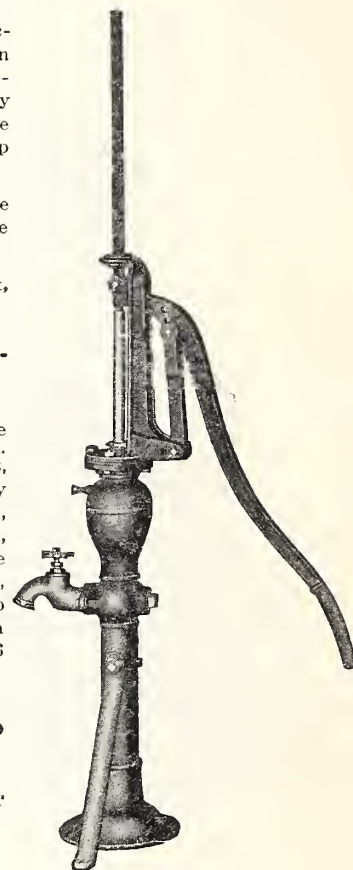
No. 75 Force Pump Standard with Cock in Spout, weight 80 lbs. Price, \$16.00.

NOTE: We also stock pipe, iron and hardwood pump rod.

No. 426—This double gear pump jack meets the demand for an extra strong jack for deep well work. It measures 13 in. between the large gear wheels, which especially adapt it for use with 3 way pumps. Made with double gears 1¾ inches wide, machine cut; wrist pins are 1-inch hard steel, shafts 1¾ inch drawn steel keyed to gears; side arms are of wood. The cross head is extra strong, made with a ball and socket to attach to pump rod. Pulleys are 12 inches in diameter with 3 inch face. Two strokes 6 and 9 inches. Back geared 6 to 1.

No. 426 Double Geared Pump Jack, weight 110 lbs. Price \$21.50.

No. 428 Double Geared Pump Jack for Motor Drive. Price \$21.50.



PATENT NON-SHRINKING WATER TANKS

Made with a deep channel or groove in the top of the staves, which is filled with water from the patent cup outlet on the supply pipe, placed right over the edge of the tank. By keeping this groove full of water at all times the staves are kept moist from top to bottom, whether the tank is full or only one inch of water in the bottom, and thereby shrinkage and leakage are prevented on these tanks.

All hoops are constructed of round milled steel with a tensile strength of 60,000 pounds per square in. and all hoops are fitted with malleable iron adjustable lugs. Each section of hoop has a thread about five inches long on each end, which enables the tightening of the hoops in both directions. This is a great advantage over the flat hoops, which have to be driven, a job that is not very easily accomplished, or over the round hoops, where the different sections are fitted with a square head on one end, because such hoops only draw in one direction, and the hoops are always subject to an unequal tension.

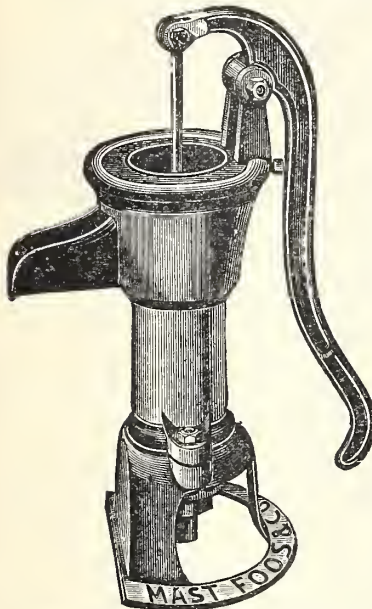
DOUGLAS FIR AND CALIFORNIA REDWOOD NON-SHRINKING WATER TANKS WITH ROUND HOOPS AND REGISTER

Capacity Gallons	Outside Diameter	Outside Height	Thickness	Approximate Weight	Approximate Measurement
500-----	5 ft. 1 in.	4 ft.	2 in.	446 lbs.	20 cu. ft.
1000-----	6 ft. 6 in.	5 ft.	2 in.	729 lbs.	30 cu. ft.
1500-----	7 ft.	6 ft.	2 in.	933 lbs.	50 cu. ft.
2000-----	8 ft.	6 ft.	2 in.	1065 lbs.	60 cu. ft.

Write for Prices—Information on large tanks sent on request.

HAND PUMPS

PITCHER SPOUT CISTERN PUMPS



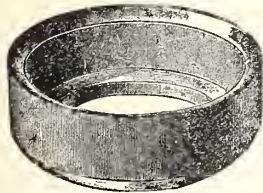
These well-known pumps are suitable for cisterns and shallow water. Revolving stand enables handle to be turned in any direction. By raising handle to full height valves are tipped and prevented from freezing. They are made of good material and with all modern improvements attached.

No. 2—3-in. cylinder; fits 1 1/4-in. pipe; Price, \$3.50.

No. 3—3 1/2-in. cylinder; fits 1 1/4-in. pipe. Price, \$3.75.

No. 4—4-in. cylinder; fits 1 1/2-in. pipe. Price, \$5.25.

CUP AND VALVE LEATHERS



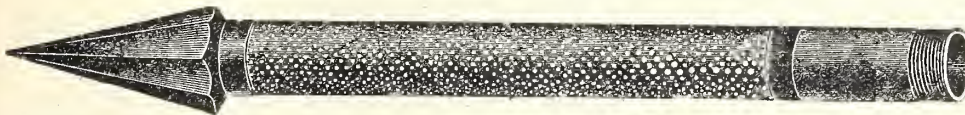
We carry all sizes from 3/4-in. up to 5 inch diameter, in our stock. Both solid and ring type.



WE CARRY IN STOCK NEARLY ALL SIZES AND KINDS OF PUMP CYLINDERS. WRITE FOR PRICES.



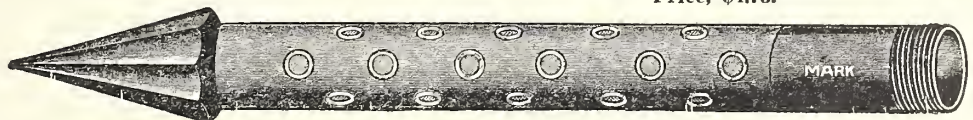
BRASS JACKET DRIVE WELL POINTS



GRAVEL DRIVE WELL POINTS

No. 302—30-in. long, fits 1 1/4 in. pipe; weight about 7 lbs. Price, \$2.90.

No. 321—30-in. long, fits 1 1/2 in. pipe; weight about 8 lbs. Price, \$3.75.

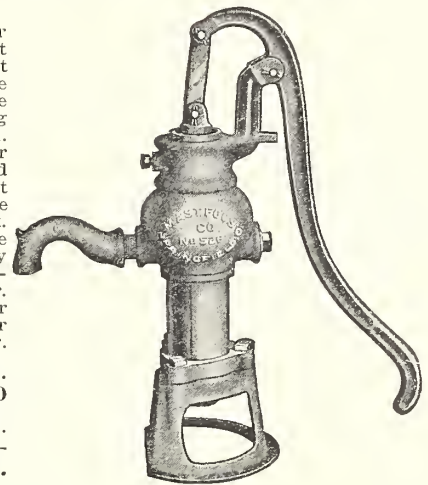


No. 67 BUCKEYE HOUSE FORCE PUMP

They are made for wells up to 20 feet in depth. The spout is provided with hose attachment to be used for sprinkling or fire protection. The body, or air chamber is provided with an extra outlet for attaching pipe leading to a tank. The handle can be swung around to any position for convenience of operator. Made with either polished iron or brass body cylinder.

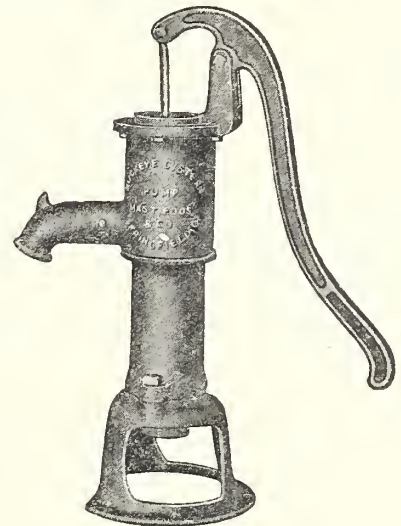
No. 67 with 3-in. Iron Cylinder. \$9.50

No. 67 with 3-in. Brass lined Cylinder. Price, \$11.00.



No. 7 ROUND SPOUT CISTERN PUMP

This pump has a bolted fulcrum cap and round spout. It has a 3-inch bored and polished iron cylinder, and is tapped for 1 1/4-inch iron pipe. Weight 35 lbs. Price \$5.00.



NOTE: We stock different types of pumps that are not given here.

No. 94—30-in. long, fits 1 1/4-in. pipe; weight about 7 lbs. Price, \$2.90.

No. 98—36-in. long, fits 1 1/4-in. pipe; weight about 8 lbs. Price, \$3.50.

No. 140—30-in. long, fits 1 1/2-in. pipe; weight about 8 lbs. Price, \$3.75.

No. 160—24 in. long, fits 2-in. pipe; weight about 7 lbs. Price, \$4.75.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Rasmussen Barn and Roof Paint

A fresh coat each year - easy to do - inexpensive



One coat of Rasmussen Barn and Roof Paint every other spring goes on smoothly, easily—anybody can do it. Quicker, simpler, less expensive than a big painting job every three or four years. And ten times the protection! Because the weather never gets a "look in" when the paint film is kept intact.

So brighten up your farm buildings, fences, etc. Select some distinctive color scheme strictly yours. Stick to it. Make it your trademark, so to speak.

Then keep all painted surfaces bright and neat—strongly protected! You'll find more rewards than we've suggested here. Try it—Start the painting habit.



Make your barn and outbuildings stand out from neighbor barns and shout "Prosperity." Good advertising!

Give them a uniform color scheme—gray or green walls, red roofs, bright-colored trim.

Good advertising and more. It's the most sensible economy you can practice. Protect your buildings from the deteriorating weather elements with a strong elastic coat of paint.

Red, Brown and Graphite—Per gal., \$2.20; 5 gals. per gal., \$2.10.

Green and Gray—Per gal., \$2.75; 5 gals. per gal., \$2.65.

Rasmussen

Presto-Lac

DRIES HARD IN 30 MINUTES

A finish for floor, woodwork, furniture and linoleum that is not affected by hot or cold water, tea or coffee, acids, grease, oil or gasoline; that does not scratch or mar easily.

Rasmussen Presto-lac is made especially to be applied with a brush so that you can do the work yourself if you prefer. Twelve harmonious colors. Stocked in gals., quarts, pints and ½ pints. Write for prices.

CALOTINT WALL FINISH

CALOTINT is the last word in perfect Kalsomine or Wall Finish, making possible the most beautiful interior decorative effects with its use.

18 shades—Price per lb., 10c.

DUTCH BOY WHITE LEAD

RAW AND BOILED LINSEED OIL

TURPENTINE

AT MARKET PRICES

Rasmussen

Inside-Floor Paint

The porch gets the brunt of it! And yet, we expect the porch to get by with no more frequent painting than we give the outside walls that get no scuffing, or the inside floor that gets neither rain nor snow.

Paint is protection for porch and steps; it doesn't pay to neglect painting them.

A new coat every spring will keep all the wear and tear from the wood. Keep porch and steps in neat and attractive appearance. Price per gal., \$3.25; ½ gal., \$1.75; qts., 95c.

Rasussen's Zincalbo

**New Jersey Zinc Company's Formula
40-40-20**

Is a white paint: 40 % XX Zinc Oxide, 40 % Albalith, 20 % Inerts (Silca and Asbestine.)

This combination produces a brilliant white paint that stays white regardless of where it is used. Sulphide fumes do not effect it.

It chalks gradually, as good paint should, leaving an excellent surface for repainting. It is non-poisonous—easy spreading—long wearing—excellent "hiding"—remarkable covering at low cost.

Price: 1 gal. cans, per gal., \$3.90; 5 gal. cans, per gal., \$3.80.

**WE CARRY A COMPLETE LINE OF BRUSHES FOR
PAINT, VARNISH AND KALSOMINE**

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

RASMUSSEN PURE PAINT

FOR EXTERIORS



Color! Color! To catch the eye and register pleasure.

That's why we put a bright red roof on a little gray-green house—to please the folks who look at it. But pleasing appearance is not paint's only value.

PAINT TO PROTECT

Homes in constant paint-repair outlast paint-neglected homes ten to one. Rain, sun, snow, etc., have no chance to reach the wood to rot it when a strong elastic coat of Rasmussen Pure Paint is on protection-duty.

Rasmussen Pure Paint is the result of 26 years of experience in paint making for Northwestern use. Its colors are better, it lasts longer, and leaves a better repainting surface than hand-mixed paint.



Colors—Price per gallon, \$3.90; quarts, \$1.10.

Whites—Per gallon, \$4.05; ½ gallon, \$2.10; qts., \$1.15; pts., 65c; ½ pts., 40c.



WALL-DURA Washable Wall Paint

Is a sanitary, washable paint, drying with a soft, flat finish, so much desired in modern interior decoration; particularly adapted for use on walls and ceilings in the home. WALL-DURA DOES NOT SHOW LAP STREAKS, WORKS EASILY AND EVENLY AND DRIES HARD, WITH A SOFT, RESTFUL, VELVET FINISH. IT IS NOT EASILY MARRED, DOES NOT PEEL OFF, IS OPAQUE, AND CAN BE WASHED OR CLEANED.

TWELVE SHADES. Price per gal., \$3.10; qts., 90c.

Rasmussen Interior Enamel for decorative use

Rasmussen Interior Enamel is made in twelve attractive shades besides white and black. It is easy to apply. It works easily and smoothly, dries hard, does not chip or crack readily, giving a durable gloss finish wherever applied.

Price per gallon, \$4.50; ½ gal., \$2.35; qts., \$1.30; pints, 75c; ½ pints, 45c.

Rasmussen Interior Enamel can be washed without harming the finish. The oils, gums and pigments of which it is made are selected and mixed with utmost care.

Use Rasmussen Interior Enamel for interior wood-work, furniture and built-ins.

Floor and Varnish Stain

WILL NOT TURN WHITE IN WATER

COLORS PERMANENT

The colors of Rasmussen Floor and Varnish Stain are permanent. It comes in ten attractive shades

WEARS WELL

The spilling of hot water will not make white spots. It withstands the moving of heavy furniture without scratching.

SAVES LABOR

It takes such a little time to brush on a thin sparkling coat of real finish and protection. It stains and varnishes in one operation and dries overnight.

Price per gal., \$4.60; quarts, \$1.30; pints, 65c; ½ pints, 40c.

De Laval Cream Separators

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The
LEADER
for
49
YEARS

1 Substantial, durable and unbreakable supply can. Made in one piece—seamless, sanitary and easy to clean. Anti-splash. Self-draining. Thoroughly and evenly tinned.

2 Covers and spouts are substantial and will permanently hold their shape. Fit perfectly. Smooth and easy to clean. Well tinned. Discharge cream and skim-milk in smooth, solid streams.

3 The wonderful "Floating Bowl"—the greatest cream separator improvement in twenty-five years. Runs smoothly, without vibration. Cleanest skimming bowl made. Produces a richer and smoother cream of high quality.

4 Automatic splash oil system. Bearings run on a film of oil, making separator run easier and last longer.

5 Simple lower bearing and hardened steel points submerged in oil for easy running. Quickly adjusted or replaced.

6 Open, sanitary base. Frames are finished with a durable, highly polished, black japan. Will not chip. Smooth and easy to keep clean.

THE WONDERFUL
FLOATING BOWL
THE GREATEST CREAM
SEPARATOR IMPROVEMENT
IN 25 YEARS

HAND, BELT
AND
ELECTRIC
DRIVEN

7 SIZES
200 to 1350
LBS. OF MILK
PER HOUR

MORE
THAN
4
MILLION
SALES

7 Convenient bowl-holding device for holding the bowl while the bowl nut is being tightened or loosened.

8 Sole oil supply for entire separator. No oil holes. Keep cup filled and separator will be properly oiled without further attention.

9 Bell Speed-Indicator tells when separator is not running at proper speed and so prevents loss of butter-fat.

10 The finest top bearing ever made—self-adjusting, self-oiling, twice the bearing surface of any other, made of the best materials.

11 Lightrunning. Design of bowl, gearing, bearings and oiling system make the De Laval the easiest running separator with milk going through the bowl. It takes less power to run and lasts longer.

12 Renewable bushings—no wear on frame. Rust-proof worm wheel with perfectly cut teeth. Quickly and easily lined up with spindle.

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Guaranteed

"De Laval Cream Separators are guaranteed to be as represented and to fulfill all the claims made for them, being sold subject to the guarantee of their unequalled superiority in every material feature of separator practicability, inclusive of the production of a greater value of cream and of a greater quantity of butter of better quality than is possible through the use of any other separator or creaming system."



Skim the Skim-Milk

Ask us to bring out a De Laval and run your skim-milk through it. The new De Laval skims so clean that it certainly will recover any butter-fat you have been losing. Then you can tell exactly whether you have been losing or making money from your separator.